

COUNTY BOROUGH OF BOLTON



ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR ENDING

31st December, 1952

RONALD W. ELLIOTT, M.D., M.Sc., D.P.H.,
MEDICAL OFFICER OF HEALTH

HEALTH COMMITTEE, 1952-53

Chairman: Alderman E. CLARKE, J.P.

Vice-Chairman: Councillor J. A. CHILDS

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Mr. W. CRUMBLEHULME

Mr. S. WOOD

INTRODUCTION

"And here, Sir, I would ask you why we should not be permitted, and not only permitted, but encouraged, to collect and embody the whole medical experience of the country for the benefit of the country? . . ."

THOMAS BEDDOES (1760-1808) *Physician*
(*A letter to Sir Joseph Banks on the Causes and Removal of Discontents in Medicine—1808*)

The work of the Health Department during 1952 was under the direction of my predecessor, Dr. A. Hutchison, who relinquished the post of Medical Officer of Health on the 15th January, 1953, to take up a similar appointment with the City of Kingston-upon-Hull. This report is therefore submitted as a factual record of work done during that year with little or no comment on wider issues.

The vital facts of the year's progress speak for themselves but special mention must be made of some welcome changes in statistical trends. For the first time, the Infant Mortality Rate dropped below the level of 30 per thousand live births and was in fact 28.4 per thousand live births. When one considers that ten years ago the rate was above 50, the achievement is remarkable. The 1952 rate in Bolton is only slightly above that for England and Wales as a whole. I have expressed my views on Mortality Rates in the North West to the Health Committee on a previous occasion when it was shown that the reasons for this high mortality compared with practically every other area in the country were closely associated with climatic and housing factors, excess smoke and other environmental defects. Consequently, the result for 1952 is very gratifying but it must not be taken that we have reached a steady low level and indeed 1953 may show a rise, because the drop from 40.8 in 1951 to 28.4 in 1952 was very sudden and so does not give a sense of security in this new low rate. I hope to be proved wrong.

There were no deaths of mothers attributable to child-birth but the low rates being experienced throughout the country make death rates from this cause somewhat valueless since one unavoidable death can cause a considerable arithmetical change in the death rate.

For the first year since records were kept, there was no proved case of Diphtheria and for the second year running, there were no deaths attributable to this disease. Strenuous efforts must still be made, however, in order to maintain this very satisfactory position but it can only be done by constant vigilance on the part of doctor and nurse, and effort on the part of parents so as to ensure that all infants receive immunisation. In spite of the good results recorded against Diphtheria, the over-all immunity of the child population of Bolton is still not satisfactory. We must aim at 75% of the infant population being immunised; this is far from being the case at present and unless this is achieved, a return of Diphtheria epidemics is possible and likely.

Whooping Cough remains one of the most serious of all the common infectious diseases of childhood. Fortunately, the Authority have for some years been conducting immunisation campaigns against Whooping Cough and indeed, combined injections of Diphtheria and Whooping Cough prophylactics have been widely used and have proved very popular with parents.

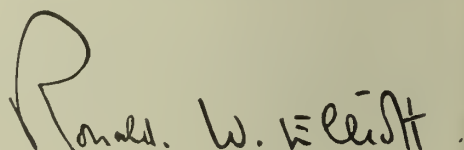
The measures needed to deal with the twin evils of slum dwellings and atmospheric pollution take a large share of the activities of the Health Department. Together, the damage caused to health by the existence of these two wide-spread defects, is very large but difficult to evaluate. In both cases, the war years have caused a deterioration in the situation and it is now essential to push ahead strongly and persistently to rid ourselves of these menaces. It will not be accomplished overnight but increasingly we should experience considerable improvement as a result of tackling a job which is well worth doing.

The report on the Mental Health Service accentuates one of the chief social problems of today, namely, the lack of institutional accommodation for mental defectives. As a contribution towards relieving this situation, I am pleased to say that the Council has seriously set itself to the task of providing an Occupation Centre. This has been a long-felt need which will be resolved within the near future.

Deaths from Cancer continued to increase and the Bolton statistics reflect what has been noted throughout the country, that Cancer of the Lung and Bronchus, particularly in malcs, has shown an extraordinary increase. The problem arises as to whether active steps should be taken to increase the knowledge of the general public concerning early signs of Cancer in order that earlier detection and treatment can be instituted. There is considerable variance of opinion both medical and lay on this matter but it is one which will have to be faced and a decision reached soon.

Although this report is largely factual, it does show a measure of progress over previous years. The factors causing ill-health are never constant; they always show changes in varying degrees and varying rates from time to time. These changes will continue and consequently the methods of dealing with the prevention of ill-health will also need to change with the varying need. For this reason, the Health Department can never remain static in its requirements. It is perhaps as well that from time to time the progress of our work in social medicine should be reviewed and the Survey of the past five years, which is included in this report at the request of the Ministry, serves a useful purpose. Similar reviews in future will no doubt help us to consider our progress critically with a view to further improvement.

I am considerably indebted to Members of the Health Committee and the Staff of the Health Department for their assistance in the production of this report concerning a year during which I was not actually in office.

Ronald W. E. Elst

MEDICAL OFFICER OF HEALTH

November, 1953.

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PRINCIPAL STAFF OF THE HEALTH DEPARTMENT

at 31st December, 1952

MEDICAL STAFF

Medical Officer of Health	Dr. Alexander Hutchison
Deputy Medical Officer of Health	Dr. Hugh Bryant
Assistant Medical Officers of Health and Assistant School Medical Officers	Dr. Audrey Seddon Dr. Rosa M. Galloway Dr. Margaret McCaffrey Dr. John Litt

NURSING STAFF

Superintendent Health Visitor	Miss F. Holden
Deputy Superintendent	Miss J. MacEachern

HOME NURSING

Superintendent	Vacant
Assistant Superintendent	Miss E. J. Thompson

MIDWIFERY

Non-Medical Supervisor	Vacant
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DAY NURSERIES

Supervisor	Miss L. W. Booth
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SANITARY INSPECTION

Chief Sanitary Inspector	G. A. Hiller
Deputy Chief Sanitary Inspector	N. Ryce

CLERICAL STAFF

Chief Clerk	T. Ryder
Administrative Assistant	W. Greenhalgh

MENTAL HEALTH SERVICE

Duly Authorised Officers	J. F. Bennett E. L. Mayoh
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DOMESTIC HELP SERVICE

Domestic Help Organiser	Mrs. G. E. H. Booth
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AMBULANCE SERVICE

Superintendent	V. T. Williams
Deputy Superintendent	H. Baber

ANALYST

Borough Analyst	F. Morris
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BATHS AND WASHHOUSES

Managers	High Street Baths	W. Cameron
	Moss Street Baths	I. H. Rushton
	Bridgeman Street Baths	A. Markham
	Rothwell Street Washhouse.. .. .	A. L. Duckworth
	Turkish Baths	W. Burns

PART I

STATISTICAL INFORMATION

Summary of Statistics

Births

Deaths

Infant and Neo-Natal Mortality

Deaths from Cancer

SUMMARY OF STATISTICS, 1952

COUNTY BOROUGH OF BOLTON

Position	Lat. 53° 35' N. Long. 2° 27' W.
Elevation above sea level	230 ft. to 1,450 ft.
Geological Formation ..	Boulder Clay and Sand over Coal Measures
Rainfall (Av. 1887-1952, 44.672")	42.897"
Area in Acres (Land and Inland Water)	15,280
Population (Census 1921)	178,683
„ (Census 1931)	177,250
„ (Census 1951)	167,162
„ (Estimated Civilian Population, 1952)	166,500
New Houses Certified including Flats, 1952	436
Existing buildings altered to provide dwelling accommodation, 1952	5
Estimated No. of Houses in the Borough at 31st December, 1952	55,264
Rateable Value at 1st April, 1952	£1,159,999
Rate at 1d. in the £ estimated to produce	£4,725
Births	2,358
Birth Rate (Crude) (per 1,000 of population)	14.02
Deaths	2,269
Death Rate (Crude) (per 1,000 of population)	13.49
Still Births	65
Still Birth Rate (per 1,000 total Births)	27.57
Average Death Rate (1942-1952)	13.85
Heart and Circulation Death Rate	6.97
Cancer Death Rate	2.29
Death Rate from diseases of the Respiratory System	1.57
Pulmonary Tuberculosis Death Rate .. .. .	.25
Infant Mortality (Deaths under one year per 1,000 live births)	28.4
Diarrhoea Death Rate (Deaths under two years per 1,000 live births)	1.27
Puerperal Death Rate (per 1,000 total births)	0

ENGLAND AND WALES—

Birth Rate (per 1,000 civilian population)	15.3
Death Rate (per 1,000 civilian population)	11.3
Infant Mortality (Deaths under one year per 1,000 live births)	27.6
Diarrhoea and Enteritis (under two years), (Death rate per 1,000 live births)	1.1

VITAL STATISTICS

Births:

There were 2,358 live births to Bolton residents, 1,243 males and 1,115 females. The birth rate per 1,000 of the population was 14.02.

Of this total, 483 live births occurred at home, 1,010 in Bolton District General Hospital, 267 in Haslam Maternity Home, 266 in Havercroft Maternity Home and 318 in Heaton Grange Maternity Home. The remaining 14 births took place in:—

Boundary Park General Hospital, Oldham	1
Grosvenor Nursing Home, Stockport	1
Doriscourt Maternity Home, Manchester	1
Glenroyd Maternity Home, Blackpool.. .. .	1
Manchester and Salford Mission Maternity Home, Manchester	1
Milton Lodge Maternity Home, Fleetwood	1
Park Hospital, Davyhulme	1
Hope Hospital, Salford	1
St. Mary's Hospital, London	1
St. Mary's Hospital, Manchester	4
Towerwood Nursing Home, Leeds	1
	<hr/>
	14
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Still Births:

The number of still births was 65, giving a still birth rate of 27.57 per 1,000 total births.

Deaths:

There were 2,269 deaths (1,132 males, 1,137 females), giving a crude death rate of 13.49 per 1,000 of the population.

A total of 704 persons, whose usual place of residence was in the county borough, died outside the borough; of these, 541 died in the Bolton District General Hospital or Townleys Annexe and 51 died in mental hospitals and hospitals for mental defectives.

Non-residents who died in the area numbered 164.

The following table gives a summary of the principal causes of death, by age. The greatest number of deaths occurred between the ages of 60 and 75.

CAUSE OF DEATH	Total No.	Percentage of Grand Total	Males	Fe- males	AGE																65 to 70	70 to 75	75 to 80	80 to 85			
					0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60					60 to 65		
Tuberculosis of Respiratory System ..	42	1.851	30	12	1	..	7	3	5	5	3	3	6	3	3	..	3	..	3	..
Tuberculosis, other ..	5	.220	2	3	3	2	1	1	..	1
Syphilitic Disease ..	6	.264	3	3
Diphtheria ..	—	—	—	—	1
Whooping Cough ..	1	.044	1	—
Meningococcal Infections
Acute Poliomylitis ..	2	.088	1	1	1	1
Measles ..	1	.044	1	1	1
Other Infective and Parasitic Diseases ..	6	.264	3	3	1	1	..	1	1	1
Malignant Neoplasm, Stomach ..	77	3.394	44	33	..	..	..	..	..	..	..	..	..	..	1	2	4	4	12	7	12	16	13	4	2	..
Malignant Neoplasm, Lung & Bronchus ..	69	3.041	57	12	..	..	..	..	..	..	..	..	..	..	1	4	2	10	17	11	7	2	..	4	1	..
Malignant Neoplasm, Breast ..	40	1.763	—	40	..	..	..	..	..	..	..	..	..	..	..	5	2	4	6	3	4	5	3	2	2	..
Malignant Neoplasm, Uterus ..	20	.881	—	20	..	..	..	..	..	..	..	..	..	..	..	1	1	2	5	3	3	3	2	..	5	..
Other Malignant & Lymphatic Neoplasms ..	176	7.757	89	87	..	..	..	..	..	..	1	..	..	2	1	..	7	10	19	32	24	34	19	12	5	..
Leukaemia and Aleukaemia ..	6	.264	3	3	1	..	1	..	..	..	..	1	..	1	..	..	2	..	1	2	1	..	..	3	..	..
Diabetes ..	13	.573	3	10	..	..	..	..	..	..	..	..	..	1	..	..	2	1	1	2	3	2	..	3	..	..
Vascular Lesions of Nervous System ..	306	13.486	125	181	..	..	..	..	..	..	..	1	..	1	..	..	2	5	4	22	35	39	65	64	49	19
Coronary Disease, Angina ..	262	11.547	162	100	..	..	..	..	..	..	..	..	..	1	1	1	2	6	18	27	47	48	45	42	14	11
Hypertension with Heart Disease ..	66	2.909	33	33	..	..	..	..	..	..	..	..	..	..	1	1	3	3	5	7	13	9	16	7	1	..
Other Heart Disease ..	416	18.335	169	247	..	..	..	..	..	..	..	..	2	2	3	2	9	7	12	32	40	72	109	82	44	..
Other Circulatory Disease ..	111	4.892	56	55	..	..	..	..	..	..	..	..	..	..	..	2	4	1	1	6	15	20	26	26	10	..
Influenza ..	11	.485	6	5	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	1	3	3	1	1	..
Pneumonia ..	74	3.262	41	33	10	1	1	1	..	..	1	..	..	..	..	..	4	4	7	4	7	8	13	9	4	..
Bronchitis ..	145	6.390	94	51	..	1	..	..	..	..	..	..	..	1	1	1	4	5	13	9	15	23	30	10	10	..
Other Diseases of Respiratory System ..	32	1.410	21	11	1	..	..	1	1	1	..	1	..	..	1	1	2	2	2	3	6	3	5	4	1	..
Ulcer of Stomach and Duodenum ..	16	.705	12	4	..	..	..	..	..	..	..	..	1	..	1	2	1	2	1	..	1	1	4	3	1	..
Gastritis, Enteritis and Diarrhoea ..	11	.485	7	4	3	..	1	..	..	..	..	2	1	..	2	1	1	1	..	1	5	6	3	3	1	..
Nephritis and Nephrosis ..	29	1.278	12	17	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	3	2	3	1	..
Hyperplasia of Prostate ..	10	.441	10	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pregnancy, Childbirth and Abortion ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Congenital Malformations ..	17	.749	7	10	14	..	..	..	1	..	1	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..
Other Defined and Ill-defined Diseases ..	209	9.211	90	119	34	3	1	1	..	2	..	..	2	3	4	6	4	9	6	12	17	15	25	27	19	19
Motor Vehicle Accidents ..	9	.397	9	—	..	..	2	..	..	..	..	..	..	1	1	1	1	1	1	2	3	15	6	7	3	..
All Other Accidents ..	58	2.556	29	29	4	1	..	1	..	..	..	1	1	2	3	1	2	3	4	3	1	1	1	3	1	..
Suicide ..	22	.970	12	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Homicide and Operations of War ..	1	.044	1	—	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	2269	100.0	1132	1137	67	8	4	4	3	5	4	9	5	22	21	26	52	82	103	166	248	282	367	399	257	135	

Deaths from Puerperal Causes:

There were no deaths from puerperal causes. The rate for England and Wales was 0.72 per 1,000 total births.

Death Rate of Infants under One Year of Age:

There were 67 such deaths, giving an infant mortality rate of 28.4 per 1,000 live births. The rate for England and Wales was 27.6.

Of Bolton's 2,358 live births, 2,316 were legitimate and 42 illegitimate.

The infant mortality rate amongst the legitimate children was 26.34, and amongst the illegitimate 142.8.

The following table shows the number of Infant Deaths from various groups of disease.

Infant Mortality:

DEATHS FROM COMMON CAUSES AT VARIOUS AGES
UNDER ONE YEAR OF AGE, 1952

CAUSE OF DEATH	AGE AT DEATH					Total for each cause
	Under 4 weeks	4 weeks to 3 months	3 to 6 months	6 to 9 months	9 to 12 months	
Pneumonia	2	2	3	1	2	10
Other Respiratory Diseases . .	4	1	—	—	—	5
Gastritis and Diarrhoea	—	2	—	—	1	3
Prematurity	17	1	—	—	—	18
Congenital Malformations	9	2	1	2	—	14
Accidents	—	1	2	1	1	5
Birth Injury	5	—	—	—	—	5
All other causes	2	—	4	1	—	7
TOTALS	39	9	10	5	4	67

Infant Mortality Rates for Selected Causes:

The following table shows the infant mortality rates in five groups of diseases for the years 1943 to 1952 inclusive.

It will be noticed that there has been a welcome fall in the death rate due to respiratory disease in infants, and that the rate for gastritis and diarrhoea has made a dramatic fall during these years. There is much that must be attempted in order to reduce still further the death rate from respiratory disease.

INFANT MORTALITY, 1943—1952

CAUSE GROUPS	Year and Rates per 1,000 Live Births									
	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952
Respiratory ..	7.7	9.3	9.7	7.5	5.9	7.6	7.7	5.1	12.5	6.4
Gastritis and Diarrhoea ..	1.9	3.8	3.7	2.6	2.9	3.1	0.7	2.4	1.6	1.3
Prematurity ..	13.4	19.7	15.4	12.4	13.3	14.1	11.5	12.6	15.4	7.6
Congenital Malformations	11.1	10.1	4.9	8.2	7.7	4.5	6.6	9.1	4.0	5.9
All Other Causes	16.1	14.5	13.4	7.6	7.1	8.9	4.0	6.3	7.3	7.2
TOTAL RATE—Bolton	50.2	57.4	47.1	38.3	36.9	38.2	30.5	35.5	40.8	28.4
TOTAL RATE—England and Wales	49	46	46	43	41	34	32	29.8	29.6	27.6

Deaths under Four Weeks:

The part of the infant mortality which occurs in the first four weeks of life is called the neo-natal mortality. There were 39 deaths of infants under 4 weeks, giving a neo-natal mortality rate of 16.5 per 1,000 live births.

The causes of death during the first four weeks of life were as follows:—

CAUSES OF DEATH	0-7 days	8-14 days	15-21 days	22-28 days	Total under 29 days
Pneumonia	1	—	1	—	2
Atelectasis	4	—	—	—	4
Prematurity	17	—	—	—	17
Congenital Malformations ..	9	—	—	—	9
Birth Injury	5	—	—	—	5
Other Causes	2	—	—	—	2
TOTAL	38	—	1	—	39

Deaths from Cancer

The following table shows the death rates from cancer of certain selected sites, calculated as the rate per cent of the total deaths. The figures are given for the last 10 years, and it is notable that the total deaths from cancer have risen steadily over the years, and in particular the percentage of deaths attributed to cancer of the lung and bronchus has increased markedly since 1946.

Localisation of Disease, Number of Deaths and Rate Per Cent of Total Deaths annually for the past ten years

SITE	YEAR																			
	1952		1951		1950		1949		1948		1947		1946		1945		1944		1943	
Stomach	77	3.394	78	2.938	74	3.135	53	2.343	69	3.123	60	2.618	62	2.769	57	2.634	61	2.740	66	2.839
Lung & Bronchus ..	69	3.041	48	1.808	39	1.652	41	1.812	35	1.584	35	1.527	30	1.339	24	1.109	17	.763	18	.774
Breast	40	1.763	29	1.092	19	.805	31	1.370	37	1.674	37	1.614	38	1.697	33	1.524	33	1.482	31	1.333
Uterus	20	.881	20	.755	17	.720	26	1.149	22	.995	15	.654	22	.983	15	.693	9	.404	19	.817
Other Sites	176	7.757	185	6.968	203	8.601	175	7.736	195	8.827	188	8.202	161	7.191	157	7.255	176	7.906	177	7.616
Total Deaths from Cancer	382	16.836	360	13.559	352	14.915	326	14.412	358	16.206	335	14.616	313	13.979	286	13.216	296	13.297	311	13.382
TOTAL DEATHS (All Causes) ..	2269		2655		2360		2262		2209		2292		2239		2164		2226		2324	

PART II

LOCAL HEALTH SERVICES

Care of Mothers and Young Children

Midwifery

Health Visiting

Home Nursing

Vaccination and Immunisation

Ambulance Service

Prevention of Illness, Care and After-Care

Domestic Help

Mental Health

CARE OF MOTHERS AND YOUNG CHILDREN

Ante-Natal Clinics:

In September, 1952, Ante-Natal Clinics were started at the Civic Centre; two clinics were held each week and an average of 29 patients attended each clinic. 249 expectant mothers made 729 attendances at 25 sessions.

The clinics were conducted by an Assistant Medical Officer assisted by a Municipal Midwife, a Health Visitor and a Pupil Midwife. The Local Authority midwives attended in turn, attendances being so arranged that the midwife and her patients attend on the same day.

Post-Natal examinations were made by appointment. A letter was sent to each mother pointing out the importance of attending for this examination and giving her an appointment.

Arrangements were made for the necessary pathological specimens to be examined at the Laboratory at the Bolton Royal Infirmary. The family doctor was informed of the clinic findings in each case.

Previous to September, 1952, the midwives held clinics in their own homes for those mothers who had booked to have the confinement at home.

Child Welfare Centres:

Additional Child Welfare Centres were opened in May and October, one being held on a Saturday morning in one of the Local Education Authority's schools and the other being in the Civic Centre. The total number of children who attended at such Centres during the year was 3,676, and the total number of attendances was 38,379.

The following table shows the number of sessions and the attendances at each Centre.

	Number of Sessions	Total Number of Attendances	Average Number of Attendances per Session
Civic Centre (1)	47	3317	70.6
Daubhill	50	3369	67.4
Halliwell	47	3178	67.6
Rosehill	50	2776	55.5
Civic Centre (2)	49	2995	61.1
Deane	47	2357	50.2
Chalfont Street	47	1917	40.8
Tonge Fold	47	3238	68.9
Delph Hill	46	2614	56.8
Tonge Moor	49	2730	55.7
Chorley Old Road	51	3479	68.2
High Street	50	2459	49.2
Astley Bridge	50	2712	54.2
*Lever Edge	32	983	30.7
†Civic Centre (3)	12	255	21.2

*Opened 3rd May

†Opened 2nd Oct.

The Centres were staffed by an Assistant Medical Officer, two Health Visitors and voluntary workers, and both priority and welfare foods were available.

During the year the medical officers in charge of the Centres referred 28 children to hospital consultants, after the expressed or implied consent of the child's family doctor was given. These children were referred to the following consultants—

Chest Physician	1
Dermatologist	5
E.N.T. Surgeon	4
Ophthalmic Surgeon	11
Orthopaedic Surgeon	5
Paediatrician	3

One child was referred to two consultants.

Dental Treatment:

It was not possible to start a priority service for the dental treatment of expectant and nursing mothers and young children due to the shortage of dental staff. It is hoped, however, to commence such a service in 1953.

Massage and Ultra Violet Light Therapy:

Arrangements are in force for children under school age to attend for Ultra Violet Light therapy or Massage at the Civic Centre, if recommended for such treatment by the medical officers at the Child Welfare Centres. A Physiotherapist was employed on a sessional basis for this purpose.

329 children attended 148 sessions, and 3,976 U.V. Light treatments were given. 592 children received 2,006 treatments at 246 sessions held for massage.

Admission to Mother and Baby Homes:

Four families (4 mothers and 11 children) were recommended for admission to the Brentwood Recuperative Centre. Six families were admitted during the year, five of whom had been recommended for admission during 1951. Family income and expenditure was assessed, and a charge made according to the means. Most families were unable to afford the full charges, but all of those accommodated in 1952 were able to make some contribution. Two families cancelled their applications and made other arrangements. Those awaiting accommodation expect to be admitted during 1953.

Day Nurseries:

There were 7 Day Nurseries, with a total of 351 places, the accommodation being as follows:—

<i>Nursery</i>	<i>Accommodation</i>
Arkwright Street	44
Newport Street	60
Park House	50
Shaw Street	50
Merehall	47
Cotton Street	50
Roxalina Street	50

At the request of the Children's Committee, under Section 13 (vi) of the Children's Act, twelve places at Park House Nursery were allocated for the use of the Children's Committee for the admission of resident children for short periods.

The total number of children attending the Local Authority's day nurseries during the year was 751. The reasons for attendance were:—

Children whose mothers were employed in mills	394
„ „ „ „ „ „ clothing factories	67
„ „ „ „ „ „ domestic work	38
„ „ „ „ „ „ engineering	26
„ „ „ „ „ „ offices	34
„ „ „ „ „ „ as domestic helps	3
„ „ „ „ „ „ nurses in hospitals or nurseries	20
„ „ „ „ „ „ teachers	3
„ „ „ „ „ „ shop assistants	41
„ „ „ „ „ „ in other occupations	60
„ „ „ „ „ „ patients in Sanatorium or Hospital	51
„ „ „ „ „ „ deceased	6
„ „ „ „ „ „ who were deserted by their mothers	8
	<hr/>
	751

Twenty-four mothers of these children were separated from their husbands, six were widows and thirty-three were unmarried. The waiting list at the beginning of the year was 310 and at the end of the year 150. The nurseries employed 98 nursing staff and 35 domestic staff.

Routine medical inspections were carried out, and every child was offered immunisation against whooping cough and diphtheria.

Nursery Nurses' Certificates:

During the year 13 Nursery Nurses were successful in obtaining the Certificate of the Nursery Nurses Examination Board.

Industrial Nurseries:

At the end of the year, 6 Registered Industrial Nurseries provided accommodation for 240 children.

Two Industrial Nurseries closed owing to the cotton trade recession.

MIDWIFERY

At the end of 1952 there were 7 Local Authority Midwives and 4 private Midwives practising in the district. They attended 533 cases, an average of 45 cases per midwife.

Midwives conducted 476 confinements. Doctors with midwives as maternity nurses conducted 23 confinements. 34 patients either miscarried or were sent to hospital before delivery. Of the patients delivered on the district—

499 were live births

11 were still births weighing over 5½ lbs.

7 were still births weighing under 5½ lbs.

Analgesics were administered by all midwives employed by the Local Authority. Gas and Air was administered in 382 cases. Pethidine was given in 126 cases.

Midwives sought medical aid from family doctors in 126 cases for conditions as follows:—

1. CONDITIONS RELATING TO MOTHER:

(a) Ante natal conditions	{ Ante partum haemorrhage Abortions }	.. ..	20
(b) Prolonged 1st stage	.. .. .	.. .. .	8
(c) Delay in 2nd stage	.. .. .	.. .. .	14
(d) Post partum haemorrhage or Retained Placenta	.. .. .	.. .. .	11
Perineal tear	.. .. .	.. .. .	30
Puerperal rise of temperature	.. .. .	.. .. .	4
Other puerperal conditions	.. .. .	.. .. .	4
(e) Miscellaneous conditions	.. .. .	.. .. .	10

2. CONDITIONS RELATING TO CHILD:

(a) Prematurity	.. .. .	.. .. .	11
(b) Malformation	.. .. .	.. .. .	4
(c) Discharging Eyes	.. .. .	.. .. .	8
(d) Other conditions	.. .. .	.. .. .	7

Recommendations to hospital for confinement on social grounds:

Visits to report on home conditions were undertaken by the health visitor, if requested by the hospital. Of 36 such visits made, 14 cases were considered suitable for home confinement and 22 were recommended for hospital confinement.

Care of Unmarried Mothers:

In conjunction with the Bolton Moral Welfare Association, 12 unmarried mothers were maintained in appropriate homes for periods varying from three to five months. All made contributions towards the cost of their maintenance and in 2 cases, paid all the fees.

Premature Babies:

There were 146 premature babies notified amongst 2,357 live births in Bolton. Of these, 119 were born in hospital, and 104 survived 28 days. Of 27 born at home, 6 were transferred to hospital and one of these died. Of the remaining 21 nursed at home, 20 survived 28 days and one died.

An analysis, showing the number of premature babies born in hospital or born at home, is shown below. There were no premature babies born in maternity homes and subsequently transferred to hospital.

Analysis of Premature Births

Weight at Birth	Born in Hospital				Born in Maternity Home			
	Total	Died in first 24 hrs.	Died between 2nd and 28th day	Survived 28 days	Total	Died in first 24 hrs.	Died between 2nd and 28th day	Survived 28 days
3 lbs. 4 ozs. or less . . . (1,500 gms. or less)	14	4	3	7	1	1	—	—
Over 3 lbs. 4 ozs. up to and including 4 lbs. 6 ozs. . . . (1,500-2,000 gms.)	23	—	3	20	3	—	—	3
Over 4 lbs. 6 ozs. up to and including 4 lbs. 15 ozs. . . . (2,000-2,250 gms.)	24	1	3	20	1	—	—	1
Over 4 lbs. 15 ozs. up to and including 5 lbs. 8 ozs. . . . (2,250-2,500 gms.)	32	—	—	32	21	—	—	21
	93	5	9	79	26	1	—	25

Weight at Birth	Born at Home and nursed entirely at Home				Born at Home and transferred to Hospital			
	Total	Died in first 24 hrs.	Died between 2nd and 28th day	Survived 28 days	Total	Died in first 24 hrs.	Died between 2nd and 28th day	Survived 28 days
3 lbs. 4 ozs. or less . . . (1,500 gms. or less)	—	—	—	—	—	—	—	—
Over 3 lbs. 4 ozs. up to and including 4 lbs. 6 ozs. . . . (1,500-2,000 gms.)	—	—	—	—	4	—	1	3
Over 4 lbs. 6 ozs. up to and including 4 lbs. 15 ozs. . . . (2,000-2,250 gms.)	3	1	—	2	1	—	—	1
Over 4 lbs. 15 ozs. up to and including 5 lbs. 8 ozs. . . . (2,250-2,500 gms.)	18	—	—	18	1	—	—	1
TOTAL	21	1	—	20	6	—	1	5

HEALTH VISITING

On the 31st December, 1952, there were—

- 17 Health Visitors and School Nurses (Combined posts)
- 4 Student Health Visitors
- 2 Tuberculosis Visitors with H.V. Certificate
- 1 Tuberculosis Visitor with T.A. Certificate.

The bursary scheme for training Health Visitors continued and 4 students were successful in obtaining their Health Visitor's Certificate.

The duties of the Health Visitor covered a field which is still widening, and during the year problem families continued to take up a considerable amount of visiting time. Close co-operation was maintained with the Children's Officer and with the Co-ordinating Committee for the Prevention of Child Neglect so that attempts at rehabilitation could be made wherever possible. There was also close co-operation with the Geriatric and Paediatric Units at the Bolton District General Hospital. The Health Visitors made enquiries in cases of chronic sickness and reported on home conditions, and also paid visits to the homes of children discharged from hospital if a request for such a follow-up was received from the Paediatric Unit. Health Visitors also paid many visits in connection with a special inquiry into prematurity, organised by the National Birthday Trust Fund.

During the year three Health Visitors were engaged in both clinical and visiting duties connected with the work of the Chest Physician, and 1,802 visits were paid to tuberculous patients living in their own homes.

The following table gives an analysis of the visits made by the Health Visitors.

First visits to newly-born babies	2,315
Visits to children, 1-5 years	17,984
First visits to expectant mothers	173
Subsequent visits to infants under 1 year	9,829
Subsequent visits to expectant mothers	53
Enquiries into deaths occurring in children (under 1 year of age)	47
Visits to cases of infectious disease	84
Visits to chronic sick	367
Visits to arrange after-care	47
Miscellaneous visits	1,381
Total Visits	<u>32,280</u>

HOME NURSING

The Home Nursing Service functions from the District Nurses' Home. At the end of 1952 the staff consisted of—

1 Assistant Superintendent
5 Full-time Queen's Nurses
2 Full-time Queen's Male Nurses
2 Part-time Queen's Nurses
2 Full-time State Registered Nurses
1 Full-time Male State Registered Nurse
3 Part-time State Registered Nurses
1 Part-time Registered Fever Nurse
4 Full-time State Enrolled Assistant Nurses
1 Part-time State Enrolled Assistant Nurse
1 Full-time Male Orderly

Of these, only three were resident in the Home.

The Superintendent Health Visitor was acting as Superintendent of the Service pending the appointment of a new Superintendent.

The Service was available from 8.30 a.m. to 10.0 p.m. Patients were nursed at the request of the family doctor, or of the Medical Officer of Health, or after discharge from hospital at the request of the hospital authorities.

Three motor cars and six pedal cycles were available for use by nurses.

The following table shows the work done during the year.

Cases being nursed on the 1st January, 1952	.. ..	386
New cases arising during the year:		
Adults	.. .. .	2,858
Children under 5 years	.. .. .	173
School children, 5-15 years	.. .. .	168
	—	3,199
Total cases nursed during the year	.. .. .	<u>3,585</u>

Summary of New Cases Nursed

	<i>No. of Patients</i>
ADULTS	
NURSING OF PATIENTS SUFFERING FROM INFECTIOUS DISEASES:	
Tuberculosis	126
Pneumonia	180
Influenza	52
Scarlet Fever	3
Ophthalmic	5
Erysipelas	7
SURGICAL NURSING	378
ORTHOPAEDIC	23

MEDICAL NURSING:

Bronchitis	58
Pleurisy	23
Rheumatoid Arthritis	50
Rheumatism	10
Cerebral Haemorrhage (Under 60)	10
" " (Over 60)	229
Cancer	199
Anaemia	135
Senility	163
Ear, Nose and Throat	193
X-ray Preparation	199
Constipation	126
Gynaecological	145
Cardiovascular disease	311
Threadworms	7
Diabetes	62
Disseminated sclerosis	24
Skin Diseases	30
Other medical conditions	110
Total Adults	2,858

CHILDREN

	<i>Under 5 years</i>	<i>5-15 years</i>
Threadworms	20	10
Pneumonia	30	16
Constipation	8	7
Eczema	4	1
Infectious Disease	8	1
Otitis Media	24	55
After-Care of Tonsillectomy	7	7
Circumcision	19	
Ear, Nose and Throat	5	19
Bronchitis	27	11
Adenitis	8	7
Surgical Dressings	14	27
Anaemia	1	—
Spina-bifida	1	—
Scalds	1	—
Others	5	7
Total Children	173	168

VACCINATION AND IMMUNISATION

Vaccination:

There were no arrangements for infants to be vaccinated at clinics and parents were advised to consult the family doctor. A letter was sent to the parents of every child born within the borough, or whose parents normally reside within the borough, advising them to consult a doctor about vaccination. In addition, the Health Visitors, on their visits to the home, advised parents about vaccination.

The following table shows the number of persons vaccinated or re-vaccinated.

	AGE AT DATE OF VACCINATION					TOTAL
	Under 1 year	1 year	2 to 4 years	5 to 14 years	15 years or over	
Number vaccinated.. ..	543	41	54	61	170	869
Number re-vaccinated ..	1	1	5	14	292	313

At the end of the year, arrangements were made for vaccination in Infant Welfare Clinics to be started in January, 1953.

Immunisation:

The following table shows the number of children, in their respective age groups, who were completely immunised against Diphtheria only, or Diphtheria and Whooping Cough, and the number of children who received a reinforcing injection.

AGE	Completely Immunised		Reinforcing Injections	TOTAL
	Diphtheria	Whooping Cough and Diphtheria		
0- 1 year	105	546	—	651
1- 2 years	130	508	—	638
2- 3 "	37	63	—	100
3- 4 "	29	34	9	72
4- 5 "	40	16	97	153
Total 0-5	341	1167	106	1614
5- 6 years	144	20	541	705
6- 7 "	156	7	611	774
7- 8 "	63	1	362	426
8- 9 "	30	2	136	168
9-10 "	2	—	13	15
10-11 "	—	1	1	2
11-12 "	—	—	4	4
12-13 "	—	1	4	5
13-14 "	1	—	—	1
14-15 "	—	—	—	—
Total 5-15	396	32	1672	2100
15 years and over ..	—	1	—	1
GRAND TOTAL ..	737	1200	1778	3715

The estimated mid-1952 population of children under 5 was 12,800. Of these, 6,759 had been immunised up to the 31st December, 1952, a percentage of 52.8.

The estimated mid-1952 population of children aged 5-14 years was 22,700. Of these, 17,265 had been immunised up to 31st December, 1952, a percentage of 76.05.

The total estimated mid-1952 population of children aged 0-14 years inclusive, was 35,500, and of these 24,024 had been immunised up to 31st December, 1952, a percentage of 67.67.

It is of paramount importance that Diphtheria Immunisation is maintained at a high level.

The following figures show the number of children immunised during the past eleven years.

Diphtheria Immunisation

Age at date of inoculation	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	TOTAL
Under 1 yr.	8	18	97	54	103	425	756	799	835	698	651	0-5 years 6,759
1- 2 years	981	1017	844	1253	1121	1037	1115	657	606	670	638	
2- 3	669	281	179	243	171	101	103	124	94	76	100	
3- 4 "	681	267	75	120	128	67	59	48	72	60	63	
4- 5 "	753	257	53	68	105	69	75	58	53	46	56	
5- 6 "	513	206	58	53	54	36	100	114	93	58	164	5-10 years 8,575
6- 7 "	297	156	23	49	59	17	77	94	83	35	163	
7- 8 "	269	150	17	41	67	11	33	37	63	21	64	
8- 9 "	192	137	21	26	57	16	20	26	54	5	32	
9-10 "	154	126	14	26	54	20	16	23	43	1	2	
10-11 "	130	156	16	23	54	4	5	9	7	2	1	10-15 years 6,648
11-12 "	125	171	19	6	43	5	3	—	9	—	—	
12-13 "	78	214	21	15	35	2	1	1	2	—	1	
13-14 "	117	187	20	16	12	1	—	—	—	—	1	
14-15 "	27	69	8	2	2	1	1	—	1	—	—	Over 15 years 3,774
15 years and over ..	—	—	3	—	3	18	2	1	2	6	1	
TOTALS ..	4994	3412	1468	1995	2068	1830	2366	1991	2017	1678	1937	25,756

AMBULANCE SERVICE

The Borough Ambulance Service is responsible for dealing with the transport of patients in the area of the County Borough of Bolton and also in the adjacent district of the Lancashire County Council administered by the Turton Urban District Council. The latter service is carried out at the request of the Lancashire County Council on an agency basis.

There was a slight decrease in the work of the Service during 1952, due in part to effective co-ordination with the hospital authorities.

The following tables show the total mileage run during the years 1950, 1951 and 1952, and the total number of patients carried during these years both by ambulances and sitting case cars. The figures in each case relate to the borough only, and exclude the Lancashire County agency service.

Total Mileage

	1950	1951	1952
Ambulances	95,988	98,296	94,052
Sitting Case Cars	32,378	61,845	59,657
TOTAL	128,366	160,141	153,709

Total number of Patients carried

	1950	1951	1952
Ambulances	27,654	28,630	25,365
Sitting Case Cars	4,342	8,596	10,806
TOTAL	31,996	37,226	36,171

The following table shows the number of patients carried and the mileage run, month by month, during the year. The figures relate to patients resident in Bolton and, in a few cases, to patients transported in an emergency on behalf of neighbouring boroughs or the Lancashire County Council (excluding the Turton area).

MONTH	PATIENTS			MILES		
	Am- bulances	Sitting Case Cars	Total	Am- bulances	Sitting Case Cars	Total
JANUARY	2,363	638	3,001	8,109	4,059	12,168
FEBRUARY	2,297	617	2,914	9,772	1,198	10,970
MARCH	2,345	662	3,007	7,183	4,381	11,564
APRIL	2,269	726	2,995	7,179	4,835	12,014
MAY	2,170	709	2,879	7,085	3,984	11,069
JUNE	1,912	880	2,792	6,335	3,958	10,293
JULY	1,663	872	2,535	6,260	5,099	11,359
AUGUST	1,632	907	2,539	6,030	4,723	10,753
SEPTEMBER	1,711	897	2,608	6,316	4,265	10,581
OCTOBER	1,642	1,095	2,737	6,059	5,476	11,535
NOVEMBER	1,789	996	2,785	6,284	4,603	10,887
DECEMBER	2,335	1,073	3,408	7,718	5,154	12,872
TOTAL	24,128	10,072	34,200	84,330	51,735	136,065

An analysis, month by month, of the conditions for which patients were transported in an emergency is shown below, together with those long journeys over 60 miles, or journeys concerned with the supply of analgesia apparatus to midwives conducting confinements.

It is interesting to note that the figures for accidents in the home, and industrial injuries, are not far short of those for road accidents.

TYPE OF CASE	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Pa- tients
EMERGENCY:													
Collapse	21	21	22	34	32	24	28	15	19	27	22	36	301
Sudden Illness .. .	6	6	9	5	5	13	13	4	12	8	8	16	105
Road Accidents .. .	21	33	34	24	28	30	17	14	25	30	22	28	306
Accidents in the Home	27	18	20	20	28	23	27	26	11	21	19	25	265
Burns	2	1	3	4	5	2	—	—	3	3	9	3	35
Scalds	6	5	4	3	2	—	4	2	6	8	4	4	48
Fights & Drunks .. .	7	8	3	5	7	4	6	7	4	5	4	8	68
Industrial Accidents ..	31	26	16	25	16	17	14	11	9	32	20	16	233
Gas Poisoning	5	3	1	3	—	2	—	—	4	—	1	5	24
Poisoning	1	1	2	2	4	1	1	5	—	2	2	5	26
Accidents at School ..	8	5	6	3	7	7	6	1	6	5	7	7	68
Drowning	—	1	—	—	1	—	3	—	1	—	1	—	7
Electric Shocks, etc. . .	—	—	—	—	—	—	—	—	3	1	—	—	4
Gale Casualties	—	—	—	—	—	—	—	—	—	—	—	8	8
Falls due to Ice	—	—	—	—	—	—	—	—	—	—	—	57	57
Epileptics	—	3	—	5	4	5	4	5	5	2	3	2	38
Attempted Suicides .. .	—	1	—	1	—	1	—	—	1	—	—	1	5
Miscellaneous	41	49	32	42	35	59	45	62	32	26	41	50	514
TOTAL EMERGENCIES ..	176	181	152	176	174	188	168	152	141	170	163	271	2,112
MATERNITY CASES .. .	133	143	148	139	130	162	142	141	149	113	142	139	1,681
Births in Ambulances	—	—	—	—	—	—	1	—	—	—	1	—	2
Born before arrival of Ambulance	—	—	—	1	—	—	—	—	1	—	—	1	3
TOTAL MATERNITY CASES	133	143	148	140	130	162	143	141	150	113	143	140	1,686
LONG JOURNEYS (60 miles or more) .. .	5	8	6	9	7	8	13	7	5	5	1	4	78
SUPPLY OF ANALGESIA APPARATUS FOR HOME CONFINEMENTS	47	72	74	70	72	70	56	75	59	54	50	39	738

Agency Arrangements:

The following tables refer to patients carried and mileage run for the Lancashire County Council under the Agency Arrangements for the Turton area.

MONTH	PATIENTS			MILES		
	Am- bulance	Sitting Case Cars	Total	Am- bulance	Sitting Case Cars	Total
JANUARY	136	74	210	1,062	812	1,874
FEBRUARY	125	35	160	958	346	1,304
MARCH	103	31	134	670	355	1,025
APRIL	152	35	187	820	318	1,138
MAY	137	53	190	1,099	495	1,594
JUNE	109	69	178	860	652	1,512
JULY	135	58	193	870	698	1,568
AUGUST	57	49	106	486	589	1,075
SEPTEMBER	89	70	159	697	717	1,414
OCTOBER	56	75	131	592	901	1,493
NOVEMBER	53	87	140	778	1,010	1,788
DECEMBER	85	98	183	830	1,029	1,859
	1,237	734	1,971	9,722	7,922	17,644

The conditions for which patients from the Turton area were transported in an emergency were:—

TYPE OF CASE	Jan	Feb	Mar	Apl	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Pa- tients
EMERGENCY:													
Collapse	—	—	—	1	—	—	1	—	1	—	—	—	3
Sudden Illness	—	—	—	—	—	—	1	—	—	—	1	—	2
Road Accidents	1	2	—	1	5	1	7	1	3	5	4	—	30
Accidents in the Home	—	—	1	1	1	—	1	—	1	1	—	—	6
Burns	—	—	—	—	—	—	—	—	—	—	1	—	1
Scalds	1	—	—	—	—	—	—	—	—	—	1	—	2
Industrial Accidents ..	1	—	1	—	1	1	2	1	—	—	—	1	8
Poisoning	—	1	—	—	—	—	—	—	—	—	—	—	1
Accidents at School ..	—	—	—	—	—	—	—	—	—	—	1	1	2
Miscellaneous	3	5	—	2	4	1	1	—	1	2	5	1	25
TOTAL EMERGENCIES ..	6	8	2	5	11	3	13	2	6	8	13	3	80
MATERNITY CASES ..	7	7	9	9	8	6	6	6	3	6	6	5	78
Born before arrival of Ambulance	—	—	—	—	—	—	—	1	—	—	—	—	1
TOTAL MATERNITY CASES	7	7	9	9	8	6	6	7	3	6	6	5	79

Equipment and Personnel:

The last of the pre-war ambulances was sold and an order given for a replacement. The fleet, at the end of the year, consisted of the following vehicles:—

<i>Make</i>	<i>H.P.</i>	<i>Reg. No.</i>	<i>Purchase Date</i>
AMBULANCES:			
Austin	16	CWH 606	20. 4.48
Austin	16	DBN 226	29.10.48
Austin	16	DBN 250	5.11.48
Bedford	26	DBN 287	30.11.48
Commer	14	DBN 386	30.11.48
Austin	16	DBN 444	20.12.48
Austin	16	DBN 555	20. 1.49
Austin	16	DBN 800	6. 4.49
Austin	27	EWB 345	23. 8.51
SITTING-CASE CARS:			
Austin	10	CBN 168	1946
Austin	16	CWH 626	28. 4.48
Austin	16	EBN 355	4.10.50
Austin	16	EWB 111	4. 6.51
Austin	16	EWB 222	6. 6.51

There has been some re-organisation of the Ambulance Service personnel. One Attendant passed his driving test and was promoted to Driver/Attendant. Four Drivers were promoted to Shift Leaders, and the Service was organised into shifts, each under the control of a Shift Leader. Two female Attendants were appointed to deal with, in particular, maternity and female mental cases, and their services have been most valuable. A general labourer was appointed for the purpose of cleaning the garage and oiling and greasing vehicles under the supervision of the mechanics. At the 31st December the staff of the Service consisted of—

- Superintendent
- Deputy Superintendent
- 4 Shift Leaders
- 24 Drivers
- 3 Male Attendants
- 2 Female Attendants
- 1 General Labourer
- 1 Foreman Mechanic
- 1 Mechanic
- 1 Full-time Clerk

New Equipment:

Each ambulance was equipped with an oxygen cylinder and mask in place of the older type resuscitation apparatus using a mixture of carbon dioxide and oxygen. This was done in accordance with the recommendations of the Medical Research Council.

PREVENTION OF ILLNESS, CARE AND AFTER CARE

Loan of Nursing Equipment:

The Authority continued to provide articles of nursing equipment for use by patients in their own homes. This equipment was extended to deal with the home nursing of four paraplegic patients. Close co-operation was maintained between the hospital authorities, family doctors and the department, for the supply of equipment.

The following figures illustrate the extent of the service.

	Number Available 31.12.52	Number Issued during the year	Number in stock 31.12.52
Bed Pans	69	133	3
Air Rings	65	106	2
Tan-Sad Invalid Chairs	9	9	0
Bed Rests	52	73	2
Chair Night Commodes	5	0	0
Blankets	10	0	10
Sheets	16	0	8
Pillow Cases	12	0	6
Crutches	2	2	1
Urine Bottles	28	61	2
Feeding Cups	3	0	0
Pillows (Flock)	12	0	6
Hot Water Bottles	11	0	11
Rubber Sheets	50	134	20
Children's Cots	3	0	0
Dunlopillo Mattresses	2	0	0
Motor-propelled Chair	1	0	0
Bed Cradles	2	2	1
Lilo Air Beds	2	2	1

Admission to Convalescent Homes:

Fifteen adults and 7 children were recommended by the Local Health Authority for periods of convalescence of two to four weeks and accommodation was found for 11 adults and 4 children in various Centres. The men (4) were admitted to the Blackburn and District Convalescent Home at St. Annes-on-Sea, and the Semon Convalescent Home at Ilkley. The women (7) were admitted to the Blackburn and District Convalescent Home at St. Annes-on-Sea, the Convalescent Home for Epileptics at Saxmundham, the John Reynolds Convalescent Home at Lytham, the Lear Home of Recovery at West Kirby, and the Sutcliffe Rhodes Lodge at Birkdale.

The children (4) were admitted to the Children's Convalescent Home at West Kirby, the John Reynolds Convalescent Home at Lytham, the Sefton Convalescent Home at Birkenhead, and the St. Joseph's Convalescent Home at Freshfield. Two of the children were recommended for convalescence during 1951.

Applications were withdrawn by four women and other arrangements made. The applications for five children were withdrawn by parents wishing to make other arrangements.

All applicants for convalescence were assessed on their income and expenditure, and in five cases the Local Health Authority paid the full fees for accommodation.

Part of the work of after-care is included in the paragraphs on Tuberculosis in a later section of this report.

HOME HELP SERVICE

On January 1st, 1952, there were 36 full-time home helps and 99 part-time, and on December 31st there were 25 full-time and 111 part-time.

The table shows how the expansion of the Home Help Service has continued. The figures given show the number of home helps, both full and part-time, in January and December of each year from 1949.

HOME HELPS EMPLOYED

	1949		1950		1951		1952	
	Whether full-time or part-time							
	Full	Part	Full	Part	Full	Part	Full	Part
January ..	56	59	56	70	52	93	36	99
December ..	60	70	53	95	35	106	25	111

The training courses run in conjunction with the Education Department have been continued and a series of monthly meetings were also held during the winter months, lectures being given by members of the medical staff and other officers of the Health Department to give the home helps an understanding of the part they play in Local Health Authority Services.

There has been less demand for home help for domiciliary confinements, but the services given to the elderly have been maintained.

The number of new cases attended during the years 1949-52 were:—

	1949	1950	1951	1952
Maternity	182	142	120	71
General Sickness, Infirmary and Senility ..	441	579	526	497

The service helped large numbers of elderly and infirm persons, and met a real need. It was, however, not possible to meet all the needs of all the elderly persons and, unfortunately, many relatives were not prepared to assist.

Fees were recovered for the services provided in accordance with a scale of charges approved by the Council, and the following figures show the number of cases, both maternity and other, in which recovery of part or full cost of the services was obtained, or in which a free service was given. The figures for the last four years are given, so that a comparison can be made.

	Maternity Cases supplied with Home Help				Cases of Sickness or Infirmary supplied with Home Help			
	1949	1950	1951	1952	1949	1950	1951	1952
No. provided free of charge.. . . .	19	9	9	1	235	348	284	301
No. provided and part cost recovered ..	156	127	81	60	156	185	160	128
No. provided and full cost recovered ..	7	6	30	10	50	46	82	68

At the 31st December there were 5 maternity and 365 other cases being supplied with home help. These cases continued in 1953.

MENTAL HEALTH

The co-ordination of all matters relating to the mental health of the community is delegated by the Health Committee to the After-Care and Mental Health Sub-Committee consisting of the Mayor, the Chairman and Vice-Chairman of the Health Committee and seven members of the Health Committee, which meets at regular monthly intervals.

The Medical Officer of Health and his Deputy are responsible for the service and are assisted by two Duly Authorised Officers (male).

Co-operation with the Medical Superintendents of Hospitals and Institutions of the Regional Hospital Board continued in a most satisfactory manner, and various reports were furnished throughout the year to the Hospital Management Committees on request.

The following summarises the functions of the department under the National Health Service Acts, 1946-49, arising from the care and supervision of patients suffering from mental illness and mental deficiency.

1. The tabulating and recording of registers and personal files relating to patients already known to the department under the Lunacy and Mental Treatment Acts, 1890-1930, and the Mental Deficiency Acts, 1913-1938.
2. Domiciliary services, i.e. the ascertainment of cases of mental illness and mental deficiency.
3. The obtaining of detention and reception orders under the Lunacy and Mental Treatment Acts, 1890-1930, and petitions, etc., under the Mental Deficiency Acts, 1913-1938.
4. The conveyance of patients suffering from mental illness or mental deficiency to hospitals and institutions.
5. The maintenance of a service outside ordinary office hours in order to deal with urgent cases requiring immediate attention.
6. The obtaining of social histories of patients admitted into mental hospitals, including statistical information.
7. The making of reports on patients granted leave of absence on trial from hospitals prior to their final discharge.
8. The making of reports on home conditions and prospects of employment relating to patients who are due to appear before the respective hospitals' committees with a view to discharge.
9. Provision of an after-care service for patients who have been in hospital for mental illness.
10. The Statutory, Voluntary and Friendly Supervision of defectives in the community, those on licence from institutions or under orders of guardianship.
11. The making of reports on mental defectives who are about to be seen by the Statutory Visitors for the purpose of recertification in accordance with the requirements of the Mental Deficiency Acts.
12. The making of home reports regarding patients on the books of mental deficiency institutions who are allowed absence on licence for the purpose of taking up employment, or those granted short holiday licence.
13. The making of periodic statutory reports on those patients residing in the community or under orders of guardianship.

None of these duties is delegated to a Voluntary Association.

Arrangements have been initiated for a weekly meeting between the Consultant Psychiatrist and the Duly Authorised Officers, which serves the purpose both of discussing cases and of training of the Duly Authorised Officers in modern conceptions of the practice relating to mental illness.

Account of Work undertaken in the Community:

Under Section 28 of the National Health Service Act:

The staff made 156 visits on the following matters:—

Visits in connection with the completion of social histories of patients admitted into mental hospitals	77
Visits made to the homes of patients discharged from mental hospitals and reports made as to their welfare	79

Under the Lunacy and Mental Treatment Acts, 1890-1930:

The Duly Authorised Officers dealt with 125 persons who needed treatment for mental disorders. They were admitted into mental hospitals under the following sections of the Lunacy Act:—

Section 16	9 men	24 women
Section 20	30 men	19 women
Section 21 (1)	19 men	24 women

In November, 1950, the Regional Hospital Board set up a bed bureau to control admissions to the major mental hospitals. This has resulted in a much more even distribution of accommodation in hospitals and there is now virtually no delay in admitting acute cases. A relatively small number of cases of aged female patients continue to cause some difficulty.

Voluntary case procedure still continues to function and complete liaison is established between the Mental Health Service and the Regional Psychiatrist who held bi-weekly clinics at each of the two local hospitals. In addition, arrangements were in operation under which he made domiciliary visits to patients who were unable or unwilling to attend the clinics. As a result, 174 patients, 73 men and 101 women, were admitted into mental hospitals as voluntary patients under Section 1 of the Mental Treatment Act, 1930.

In addition, 329 visits were made in connection with the preparation of case notes of persons alleged to be of unsound mind.

231 men and 327 women were receiving treatment in mental hospitals on the 31st December, 1952.

Under the Mental Deficiency Acts, 1913-1938:

1. Particulars of cases reported during 1952:	Under age 16		Aged 16 and over	
	M	F	M	F
(a) At school or liable to attend	3	7	—	—
(b) On leaving special schools	—	—	—	6
(c) Police or other courts	—	—	—	1
(d) Other sources	—	—	—	2
(e) Not found subject to be dealt with	—	—	—	2
TOTAL	3	7	—	11

2. DISPOSAL OF ABOVE CASES

(a) Placed under supervision	..	..	..	..	3	6	-	5
(b) Removed to place of safety	..	..	..	..	-	1	-	-
(c) Removed to institution	..	..	..	..	-	-	-	1
(d) Action unnecessary	..	..	..	..	-	-	-	2
(e) Action not yet taken	..	..	..	..	-	-	-	3
TOTAL	..	..	..	..	3	7	-	11

258 visits were made to the homes of mental defectives under Statutory and Voluntary Supervision and reports were made on the general care and home conditions.

The following visits were made at the request of the Medical Superintendents of Mental Deficiency Institutions:—

Visits to the homes of mental defectives who were being considered for holiday and short licence 63

Visits in connection with progress reports of mental defectives who were on long licence from institutions 16

Visits on home circumstances, etc., for patients who were about to be seen by the Statutory Visitors for the purpose of re-certification in accordance with the requirements of Section 11 of the Mental Deficiency Acts 77

On the 31st December, 1952, the number of mental defectives found subject to be dealt with who were under some form of supervision in the community, including those on licence from institutions, was 139. The number of mental defectives under care in institutions and places of safety was 193, making a total of 332.

The following table gives details of these defectives:—

					Under age 16		Aged 16 and over		Total			
					M	F	M	F				
1.	Under Statutory Supervision				..	13	16	47	45	121		
2.	Under Guardianship				..	..	..	—	1	2
3.	In 'Place of Safety'				..	..	..	—	1	1
4.	In Institutions				..	..	..	7	13	192
5.	Action not yet taken				..	..	..	—	3	3
6.	On Licence from Institutions				..	..	..	4	—	4
7.	Under Voluntary Supervision				..	..	..	7	2	9
TOTAL					20	30	149	133	332

**Classification of mental defectives awaiting vacancies in
institutions at the end of the year**

						Under age 16		Aged 16 and over	
						M	F	M	F
1. IN URGENT NEED									
(a)	Cot and chair cases	..	..	..	..	1	2	—	—
(b)	Ambulant low grade cases	..	..	..	..	3	1	—	—
(c)	Medium grade cases	..	..	..	..	—	—	—	1
(d)	High grade cases	..	..	..	..	—	—	—	1
2. NOT IN URGENT NEED									
(a)	Cot and chair cases	..	..	..	..	—	—	—	—
(b)	Ambulant low grade cases	..	..	..	..	1	—	—	—
(c)	Medium grade cases	..	..	..	..	1	—	1	2
(d)	High grade cases	..	..	..	..	—	—	—	—
TOTAL						6	3	1	4

Occupation Centre:

The Council continued to make efforts to find a suitable building for an Occupation Centre. The need is great, for an Occupation Centre helps both the children by virtue of the training which may be given, and the parents by relieving them for a few hours each day. It is possible that the provision of an Occupation Centre will do something to reduce the heavy waiting lists for places in mental deficiency institutions.

PART III

CONTROL OF INFECTIOUS DISEASE

Notifiable Infectious Diseases

Disinfection

Tuberculosis

Venereal Disease

NOTIFIABLE INFECTIOUS DISEASES

Incidence and Mortality:

The number of cases of notifiable disease other than Tuberculosis, notified or otherwise ascertained, and the deaths resulting from such diseases, are as follows:—

DISEASE	Total Cases Notified	Total Deaths
Smallpox	—	—
Scarlet Fever	351	—
Diphtheria	—	—
Measles	2369	—
Whooping Cough	220	1
*Pneumonia	273	74
Meningococcal Infection	—	—
Acute Poliomyelitis	8	2
Acute Polioencephalitis	1	1
Encephalitis Lethargica	—	1
Enteric Fever (including Paratyphoid)	1	—
Dysentery	202	—
Food Poisoning	54	—
Erysipelas	39	—
Puerperal Pyrexia	5	—

*The cases notified are Acute Primary and Acute Influenzal, but the deaths include all forms of Pneumonia.

For the purposes of comparison, the number of notifications of the notifiable infectious diseases during the last ten years, is given:—

	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952
Smallpox	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	289	410	308	182	229	636	296	149	448	351
Diphtheria	197	142	125	87	18	9	32	20	12	—
Measles	763	1076	1324	239	2082	2360	522	1881	1800	2369
Whooping Cough	679	214	151	264	231	363	431	583	278	220
*Pneumonia	141	97	92	132	91	125	85	56	214	273
†Cerebro-spinal Fever	10	8	7	5	16	3	2	—	—	—
†Meningococcal Infection	—	—	—	—	—	—	—	3	2	—
Acute Poliomyelitis	1	1	—	2	36	1	9	5	1	8
Acute Polioencephalitis	—	—	—	—	—	—	—	—	—	1
Encephalitis Lethargica	—	—	—	—	—	—	—	—	—	—
Enteric Fever (including Paratyphoid)	—	—	1	1	—	—	6	—	3	1
Dysentery	3	2	5	7	—	4	1	28	294	202
Food Poisoning	—	—	—	—	—	—	—	4	46	54
Erysipelas	43	33	43	22	30	48	36	30	24	39
Puerperal Pyrexia	8	9	4	2	7	8	7	3	4	5

*The figures for pneumonia are those of acute primary and acute influenzal pneumonia.

†From 1950 onwards, Cerebro-spinal Fever has been notifiable as "Meningococcal Infection".

The deaths from Infectious Diseases during the years 1943 to 1952 are shown in the following table.

	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952
Smallpox	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	—	—	1	—	—	1	—	—	—	—
Diphtheria	6	5	2	3	3	—	—	1	—	—
Measles	4	5	10	—	3	1	—	1	2	—
Whooping Cough	2	1	3	2	5	2	2	2	—	1
*Pneumonia	103	88	69	85	91	72	64	78	103	74
Meningococcal Infection	4	1	3	2	3	1	1	—	—	—
Acute Poliomyelitis	1	1	—	—	6	—	—	2	—	2
Acute Polioencephalitis	—	—	—	—	—	—	—	—	—	1
Encephalitis Lethargica	8	4	3	4	9	1	3	—	1	1
Enteric Fever (including Paratyphoid)	—	—	—	—	—	—	—	—	—	—
Dysentery	—	1	—	1	—	—	—	—	—	—
Diarrhoea and Enteritis under 2 years of age	6	12	8	8	10	6	2	5	5	3
Food Poisoning	—	—	—	—	—	—	—	—	—	—
Erysipelas	—	1	—	—	1	—	—	—	—	—
Puerperal Pyrexia	—	—	—	2	4	—	—	—	—	—

*The numbers of deaths from pneumonia include all forms of pneumonia and not merely those notifiable.

Smallpox:

No cases were notified during the year, but in view of the prevalence of the disease in a nearby area, crust specimens were taken from a patient with chickenpox after the advice of the Medical Officer of Health had been sought by a general practitioner. The case was diagnosed clinically as chickenpox and confirmed by bacteriological examination. Daily surveillance was exercised over 7 contacts of confirmed cases of smallpox and daily health inspections were made of an entire class of 37 boys in a local school because the brother of one of the boys in this class was a confirmed case of smallpox notified to a neighbouring authority.

Scarlet Fever:

There was a fall in the number of notifications of scarlet fever, 351 as against 448 in 1951. The cases were widespread mainly amongst school children and were extremely mild in character.

Diphtheria:

One adult case and 9 children were admitted to hospital with provisional diagnoses of diphtheria; in no case, however, was the diagnosis confirmed.

Measles and Whooping Cough:

The incidence of measles was the highest in the last ten years, there being 2,369 cases notified. The increase was due to an epidemic during the closing months of the year, the monthly notifications being:-

September	84 cases
October	190 „
November	589 „
December.. .. .	1,017 „

There were no deaths. Whooping cough notifications declined from 583 in 1950 and 278 in 1951 to 220 in 1952. There was one death from this disease.

Pneumonia:

There was an appreciable increase in the number of notifications, 273 cases compared with 214 in 1951; the incidence of pneumonia during both 1951 and 1952 was considerably higher than during the preceding eight years, for which figures are given in the Tables.

The increase for 1952 was due partly to an unusually large number of notifications (70) in December. The number of deaths from pneumonia, however, declined from 103 in 1951 to 74 in 1952.

Meningococcal Infection:

There were no cases notified.

Poliomyelitis and Polioencephalitis:

Twelve cases of poliomyelitis and 1 case of polioencephalitis were notified, 10 occurring during the period June-September; in 4 instances the diagnosis was not confirmed. Two deaths occurred from poliomyelitis, and 1 from polioencephalitis. All but one of the patients who recovered suffered a mild degree of paralysis. Particulars of the notifications are given below:—

Notified	Sex	Age	Notified as	Type	Remarks
14. 1.52	M	6	Poliomyelitis	Paralytic	DIED—12.1.52
27. 6.52	M	3	Poliomyelitis		Not confirmed
3. 7.52	F	20	Poliomyelitis	Paralytic	Recovered
28. 7.52	F	63	Poliomyelitis		Not confirmed
7. 8.52	M	5	Poliomyelitis	Paralytic	Nursed at home; recovered
11. 8.52	M	7	Poliomyelitis	Paralytic	Recovered
15. 8.52	M	4	Poliomyelitis	Paralytic	Recovered
20. 8.52	F	18	Poliomyelitis	Paralytic	DIED—22.8.52
22. 8.52	F	4	Poliomyelitis	Paralytic	Nursed at home; recovered
5. 9.52	F	8	Poliomyelitis		Not confirmed
10. 9.52	M	17	Poliomyelitis		Not confirmed
20.11.52	F	3	Poliomyelitis	Non-Paralytic	Recovered
20.12.52	F	31	Polio-encephalitis	Paralytic	Pregnant—DIED 13.12.52

Post Infective Encephalitis:

One man, aged 61, died of post infective encephalitis following herpes zoster. There were no other cases notified.

Enteric Fever:

Two persons were admitted to hospital with the provisional diagnosis of typhoid fever, but in neither case was the diagnosis confirmed. An outbreak of typhoid fever occurred in September in a chronic sick ward of a hospital in a neighbouring authority's district. At the time of onset, 9 members of the ward staff and 3 of the patients were normally resident in Bolton, while a further 19 patients from Bolton had been treated in the same ward between the dates of admission of the case and the date of onset of the disease. All these individuals were kept under close surveillance for a period of approximately one month and a total of 209 stool samples taken, all of which yielded negative results.

One case of paratyphoid B fever, a boy aged 9, was notified. Extensive enquiries failed to reveal the source of infection, but the history suggested that the illness was merely a recurrence of a previous infection. During routine bacteriological

investigations of contacts, the father of this boy was found to be harbouring salmonella enteritidis of the jena variety. Further details are to be found under the heading of 'Food Poisoning.'

Dysentery:

There was a fall in the number of cases of dysentery notified or otherwise ascertained; 202, compared with 294 in 1951. The number of notifications, however, remained large in comparison with earlier years. The incidence was particularly low during June-November inclusive, an average of 4.3 cases per month. All were due to shigella sonnei. Five outbreaks occurred in institutions. The first occurred in February at a Maternity Home, 3 mothers and 3 members of the staff being infected. The mothers and babies who had been exposed to infection were isolated and barrier-nursed; the infected members of the staff were taken off duty and the remaining staff were given a prophylactic course of succinyl sulphathiazole. The home was temporarily closed to new admissions, but was allowed to re-open after discharge of the existing patients and after the staff had been proved free from infection.

The second occurred in March at a Corporation Day Nurse, . The cases were confined to 7 children in the 1-2 age group, and 1 member of the staff. The disease was quickly brought under control by the exclusion of all children with suspicious symptoms and those who were found on investigation, to have Shigella sonnei in faecal specimens. The third occurred during April and May at a Nursery School. Fourteen children and 4 members of the staff were involved. The outbreak was brought under control by the exclusion of all persons with suspicious symptoms or found to have Shigella sonnei in stool specimens. Re-admission was not permitted until three negative specimens had been obtained. The final outbreak occurred at a Corporation Day Nursery in December. All children and staff with suspicious symptoms were excluded and stool specimens obtained from the remainder of the children and staff. Further positive results were obtained, some from symptomless children and staff. Prophylactic treatment of the remaining children and staff was then arranged with the family doctors. The infection was, however, so widespread that the nursery was closed. In all, 32 children and 6 staff were affected but the nursery was able to open again after eighteen days (including the Christmas and New Year holidays).

Food Poisoning:

A total of 54 cases were notified or otherwise ascertained, compared with 46 in 1951. An outbreak involving a total of 12 Bolton residents, together with 4 other persons from neighbouring districts, occurred in connection with a works outing to an area outside the district. The trip was organised from Bolton and was attended by 33 men including the driver. The party took lunch and tea at an inn in another area and snacks and drinks at other times. The first victim was affected within one and a half hours after lunch but most of the men first experienced symptoms on the return trip, the average period between ingestion and onset being ten and a half hours, and the maximum thirteen and a half hours. The main symptoms were:—

Nausea	4 cases
Stomach pains and diarrhoea	11 cases
Stomach pains, diarrhoea and vomiting	1 case

Only 1 man required medical attention and all but 4 were able to attend work as usual next day. The initial investigations suggested that the vehicle of infection had been steamed chicken and its associated dressings, consumed at the luncheon.

This suspicion received confirmation later when the investigations at the inn revealed that a further coach party from another town had visited the same inn for tea on the same day and that 7 out of the 41 members had experienced similar symptoms on the return journey. Comparison of the menus showed the only food consumed by the affected persons of both parties was chicken prepared at the same time on the previous day. A total of 53 stool samples was taken from the affected men both in Bolton and by arrangement with neighbouring authorities but no pathogenic organisms were isolated. Stool samples from the food handlers were also negative. Bacteriological examination of the left-over chicken yielded a profuse growth of faecal coli organisms and a moderately heavy growth of *Clostridium welchii* to which latter organism the outbreak can possibly be attributed. No fewer than seven different local authorities shared the work of investigating this outbreak and it is pleasing to record the ready and smooth co-operation that existed resulting in a thorough investigation of the outbreak.

Forty-two isolated cases of Food Poisoning occurred, the infecting agents being:—

<i>Salmonella typhi-murium</i>	14 cases
<i>Salmonella Newport</i>	10 cases
<i>Salmonella enteritidis</i> var. jena .. .	2 cases
Unidentified	16 cases

In none of these cases was it possible to identify the vehicle of infection with any certainty in spite of careful investigation.

Seventeen of these cases consisted of infections within the same family, as follows:—

	No. of Families	No. of Cases in Families
<i>Salmonella Newport</i>	2	6 (a); 4 (b)
<i>Salmonella typhi-murium</i> .. .	3	3; 3; 2

(a) Included one chronic carrier; remaining infections disclosed only by routine sampling of entire family after discharge of chronic carrier from hospital.

(b) The salmonella infections were discovered during routine sampling of the family following infection of 6 of its 8 members with *Shigella sonnei*.

An interesting case of infection with salmonella enteritidis var. jena was disclosed during the bacteriological investigation of the family of a case of paratyphoid B fever. The infection with salmonella enteritidis was unsuspected and the man concerned had experienced no recent symptoms. He had, however, been employed during the late War on bomb damage repair work in London and in 1945 had been one of the victims in a Food Poisoning outbreak involving about 30 men in a building workers' hostel. The London Borough concerned was, however, unable to supply any information concerning this outbreak or its cause.

The local salmonella "flora" as revealed by the Department's activities during the past few years, is set out below.

	Percentage of Cases
<i>Salmonella typhi-murium</i>	47.2
<i>Salmonella Newport</i>	33.0
<i>Salmonella St. Paul</i>	8.3
<i>Salmonella enteritidis</i> var. jena .. .	5.5
<i>Salmonella Montevideo</i>	3.0
<i>Salmonella Thompson</i>	3.0
	<hr/> 100.0 <hr/>

Investigation and Control of Infectious Diseases:

The following visits were made by the Sanitary Inspectors and Health Visitors during the year in connection with infectious diseases:—

Routine investigations	724
Surveillance visits	274
Miscellaneous visits	137
	<hr/>
	1,135
	<hr/>

Pathological Specimens:

A large number of pathological specimens were collected, a total of 4,554 being examined by the Department of Pathology, Bolton Royal Infirmary. Stool samples were taken from the entire household in almost every case of dysentery and food poisoning while towards the end of the year, specimens were taken from persons notified as suffering from "Gastro-Enteritis", following recovery in several cases of *Shigella sonnei* or *salmonellae* from persons so notified. In addition, in Corporation Day Nurseries, all staff or children with loose stools were immediately excluded and stool samples examined. In the case of notifications of diphtheria or hospital admissions for this disease, nose and throat swabs were taken from the entire household. In cases of scarlet fever, nose and throat swabs were taken from food handlers or other persons who had been in contact and whose occupations afforded exceptional opportunities for spreading infection.

The following Table shows the numbers and types of specimens examined and the results obtained.

Specimen	Examination	Positive	Negative	Total taken
Stools	Sh. sonnei	393	1845	2238
"	Salm. typhi	—	224	224
"	Salm. paratyphi B	—	60	60
"	Salmonellae (Others)	75	314	389
"	"Food Poisoning Organisms" ..	*	192	192
"	"Routine Stool Examination" ..	*	1073	1073
	Total Stool Samples	468 (11%)	3708 (89%)	4176
Throat Swabs	C. diphtheriae	1	52	53
Nose "	" " " " " " " " " " " "	2	50	52
Throat "	B-Haemolytic Streptococci	19	122	141
Nose "	" " " " " " " " " " " "	8	114	122
	Total Swabs	30 (8%)	338 (92%)	368
	TOTAL SPECIMENS	498 (11%)	4046 (89%)	4544

* "Positives" included under the appropriate organism.

The value of this work is shown by the fact that no fewer than 161 cases of *Shigella sonnei* infection and 16 cases of *Salmonella* infection were discovered by the Department, i.e. 80% and 51% respectively of the total number ascertained.

Control of Persons whose occupation might spread Infection:

Special attention has been paid to those individuals who have been in contact with infectious disease and who have special opportunities in their daily work for the spreading of infection. Food handlers, notified by their doctors as suffering from or having positive stool specimens for any form of intestinal infection, were excluded from employment. This was achieved in every case by voluntary arrangement. In the case of food handlers who were contacts, every effort was made to secure exclusion on a voluntary basis or their transfer temporarily, to duties not involving the handling of food. The necessary advice on food hygiene and personal cleanliness was given by the Sanitary Inspectors. Generally speaking, effective co-operation was achieved with both employers and employees but 3 cases occurred where food handlers failed to submit some or all of the pathological specimens requested by the Department.

School and Day Nursery Staffs found to be infected were excluded from employment until they and their families were proved free from infection.

The Table below shows the number of persons to whom special attention was directed in view of their occupations.

Category	Sonne Dysentery	Other Intestinal Infections	Scarlet Fever	Diphtheria
Food Handlers (105)				
Positive	3	1	7	—
Negative	28	17	46	3
Nursery Staffs (60)				
Positive	11	1	—	—
Negative	47	—	1	—
Hospital, etc., Staffs (42)				
Positive	4	—	—	—
Negative	28	9	1	—
School Staffs (26)				
Positive	4	—	—	—
Negative	22	—	—	—
Domestic Helps (4)				
Negative	3	—	—	1

Chronic Carriers:

Six persons suspected of being chronic carriers of infection were kept under special observation and submitted specimens at two-monthly intervals. The organisms concerned were—*Salmonella* Newport (2 persons); *Salmonella enteritidis* variety jena; *Salmonella* Montevideo; *Salmonella* Thompson; and *Shigella sonnei*. Four of these persons were able to be released from observation by the end of the year having been found to be free from infection.

It is fitting at this juncture to pay tribute to the work of the Pathological Laboratory at the Bolton Royal Infirmary for the co-operation and interest shown in the prevention of disease. Much of the work of investigation and control of infectious disease could not have been done without this valuable assistance.

Disinfection of Premises, Articles and Bedding:

Disinfection was carried out where necessary without charge after notifiable infectious diseases and cancer, and on repayment in respect of any other disease.

The table shows, by months, the number of houses visited, the number of articles disinfected and the number destroyed.

Mth	Free of Cost					On Repayment				
	Houses visited	Disinfected			Des- troyed	Houses visited	fectd			Des- troyed
		Rooms	Beds	Articles			Rooms	Beds	Articles	
Jan.	28	20	27	17	9	4	3	3	28	—
Feb.	9	6	7	26	8	3	—	16	91	—
Mar.	7	6	7	13	1	13	4	37	33	2
April	8	1	13	24	2	5	—	3	6	—
May	12	7	3	146	3	2	—	5	124	—
June	13	6	4	74	1	2	—	7	30	—
July	10	4	5	113	2	4	—	11	9	—
Aug.	10	11	24	57	1	1	—	24	98	—
Sept.	6	1	3	13	—	3	1	7	7	—
Oct.	11	2	7	109	2	2	—	2	23	—
Nov.	15	18	7	191	12	2	—	5	36	—
Dec.	9	3	5	112	1	3	—	1	29	1
Total	138	85	112	895	42	44	8	121	514	3

TUBERCULOSIS

I am indebted to Dr. J. Mitchell, Consultant Chest Physician, and Dr. D. A. Woodeson, Senior Chest Physician, for the following information.

The total number of new cases notified in 1952 was 127, as compared with 153 in 1951. One hundred and thirteen of the new cases were respiratory, and 14 were non-respiratory tuberculosis.

Notifications:

AGE AND SEX DISTRIBUTION OF CASES OF TUBERCULOSIS NOTIFIED IN BOLTON IN 1952

RESPIRATORY TUBERCULOSIS NOTIFICATIONS

Sex	AGES											Total
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	
Males	—	1	3	1	2	6	22	12	7	7	2	63
Females	1	3	3	2	4	8	17	9	1	1	1	50
TOTAL	1	4	6	3	6	14	39	21	8	8	3	113

NON-RESPIRATORY TUBERCULOSIS NOTIFICATIONS

	AGES											
Sex	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	Total
Males	—	—	1	—	—	1	1	—	1	—	1	5
Females	—	2	1	1	1	2	—	—	2	—	—	9
TOTAL	—	2	2	1	1	3	1	—	3	—	1	14

Deaths from Tuberculosis

Forty-seven Bolton residents were certified as having died of tuberculosis. This compares with 48 in 1951.

Sixteen of the deaths took place in institutions.

The age and sex distribution of those who died from tuberculosis are as follows:—

RESPIRATORY TUBERCULOSIS DEATHS

	AGES									
Sex	Under 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	Total
Males	—	—	—	—	4	7	4	9	6	30
Females	—	—	—	1	6	3	2	—	—	12
TOTAL	—	—	—	1	10	10	6	9	6	42

NON-RESPIRATORY TUBERCULOSIS DEATHS

	AGES									
Sex	Under 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	Total
Males	—	—	—	—	2	—	—	—	—	2
Females	2	—	—	—	1	—	—	—	—	3
TOTAL	2	—	—	—	3	—	—	—	—	5

The following are the numbers of new cases of tuberculosis notified during the years 1947 to 1952:—

	Number of new attendances	Number referred by Mass Miniature Radiography	Number notified	Number of deaths
1947	657	0	142	82
1948	890	163	157	70
1949	900	32	119	64
1950	901	4	105	43
1951	1255	4	153	48
1952	1454	148	127	47

It is encouraging to see a fall in the number of notified cases in spite of the increase in attendances at the clinic and an increase in the numbers referred from the Mass Miniature Radiography Organisation.

The total number of attendances at the Chest Clinic during the year was 6,436, and the number of cases on the register at the 31st December was 1,037.

Home Care of Tuberculous Patients

HOUSING:

Close liaison has been maintained with the Housing Department, and although no points system is employed, high priority has always been given to active and/or infectious cases. Lists of cases, graded in urgency from the medical point of view, were supplied monthly to the Housing Director.

	1948	1949	1950	1951	1952
Cases referred to Housing Director.. . . .	20	62	37	83	59
Cases re-housed	24	45	36	35	37

FINANCIAL ASSISTANCE:

All patients requiring financial assistance were referred to the National Assistance Board for maintenance grants and railway fares to sanatorium. All were given permits for extra foods (butter, fats, etc.). Some cases were referred to the Red Cross and British Legion for help.

NURSING REQUISITES LOANED:

The Health Department maintains a store of sick room requisites for loan to patients (and is permitted to make a charge where considered appropriate).

Items loaned during 1952 included—

Crutches, wheel-chairs, Dunlopillo mattress, motor wheel-chair, bedsteads and mattresses, bed back-rests, urinal belt, oxygen apparatus.

DISINFECTION OF HOMES: (At request of patients or doctors)

1948	1949	1950	1951	1952
Total disinfections for infectious diseases not analysed		40	31	21

DISTRICT NURSES' VISITS ARRANGED 61

These were mostly cases awaiting sanatorium treatment and placed on Streptomycin injections at home meanwhile.

HOME HELPS ARRANGED 14

HOME VISITS BY TUBERCULOSIS HEALTH VISITORS; 1802

During the year a third Tuberculosis Health Visitor was appointed by arrangement with the Hospital Management Committee, Chest Physicians and the Medical Officer of Health. The salary is paid by the Local Authority and recovered as to 4/11ths from the Hospital Management Committee.

ARRANGEMENTS FOR CHILDREN ENTERING NURSERIES 3

This figure is low mainly because the segregation of children receiving B.C.G. has been somewhat relaxed.

(Some babies were retained in Bolton District General Hospital for B.C.G. also).

SESSIONS IN CHEST CLINIC:

Total attendances 6298

Total new attendances 1454

No. of A.P. and P.P. refills 2351

B.C.G. VACCINATIONS 52

Mantoux Skin Tests 502

CONTACTS EXAMINED: 580

No. of contacts found to be definite cases 9

Mass Radiography

I am indebted to Dr. A. L. Thorburn, Medical Director of the No. 4 Mass Radiography Unit of the Manchester Regional Hospital Board, for the following information.

A Mass Radiography Unit visited Bolton at intervals between the 1st February and the 19th September.

Many of the appointments were made through the Health Department, and the following is a summary of the number of miniature films taken in Bolton.

MASS RADIOGRAPH — ANALYSIS

	Males	Females	Total
No. of Works employees and staff, etc., x-rayed . .	12,532	8,056	20,588
No. of Bolton Corporation employees and staff x-rayed	1,329	531	1,860
No. of Bolton Hospital Management Committee staff and employees x-rayed	304	927	1,231
No. of school leavers x-rayed	684	666	1,350
No. of patients referred by General Practitioners	96	107	203
No. of individuals x-rayed	1,349	2,150	3,499
TOTAL	16,294	12,437	28,731

Of these persons, 669 (391 males and 278 females) were re-called for a large film. 332 of them (189 males and 143 females) were interviewed or examined by the Medical Director. 165 persons (102 males and 63 females) were referred to the Chest Physician for treatment for tuberculosis, and 64 (29 males and 35 females) were referred to their own family doctors for the treatment of other conditions.

VENEREAL DISEASE

I am indebted to Dr. Philip S. Silver, Medical Director of the Bolton Diagnostic Clinic, for the following information.

The numbers of new cases of Venereal Disease occurring each year between 1942 and 1952 in persons resident in Bolton who attended for treatment at the Diagnostic Clinic, are given for comparison.

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952
Syphilis	78	181	93	121	151	162	113	97	93	44	58
Gonorrhoea	141	181	159	205	237	125	102	104	77	80	64
Other Conditions . .	253	377	384	458	473	390	463	449	481	405	334
TOTAL	472	739	636	784	861	677	678	650	651	529	456

The number of cases of early syphilis is falling each year, but there was an artificial rise in the number of old cases of syphilis, due to an increase in the number of routine blood tests taken in hospitals and ante-natal clinics. The combination of these factors made the total figure for syphilis show a slight rise since 1951.

The number of cases of gonorrhoea continued to fall. By far the greater number of patients attending the clinic suffered from non-specific urethritis.

About 75% of known contacts of patients attending the clinic were persuaded to come for investigation, either by the original patient or by visitors from the staff at the Clinic.

PART IV

ENVIRONMENTAL HYGIENE

Work of the Sanitary Inspectors

Work of the Borough Analyst

Statistical Tables and Appendices

Water Supplies

Baths and Wash-houses

Meteorological Survey

WORK OF THE SANITARY INSPECTOR

The nature and extent of the work done by the Sanitary Inspectors is summarised below:—

INSPECTIONS AND VISITS CARRIED OUT

Housing	10,627
Food Inspection and Food Hygiene ..	6,138
“Special Premises”	2,033
Smoke Abatement	867
Sanitation.. .. .	5,054
Nuisances.. .. .	646
Infectious Diseases	1,051
Samples (all types)	1,791
Miscellaneous	7,355
TOTAL	35,562

ACTION TAKEN

Verbal Notices issued	312
Informal Notices served	2,655
Formal Notices served	1,415
TOTAL	4,382

HOUSING

Informal Notices Served (Public Health Act, 1936).. .. . **2,308**

Statutory Notices Served:

Public Health Act, 1936: sec. 39 (defective drainage)	386
sec. 45 (defective closets)	146
sec. 75 (dustbins)*	54
sec. 93 (general defects)	759
Housing Act, 1936: sec. 9 (general defects)	Nil
Others	61

TOTAL **1,406**

*i.e., other than in connection with Ashpit Conversion Scheme.

Houses Repaired:

By Owners	1,274
By Corporation, in default of Owners	26
Partly by Owners, partly in default	7
TOTAL	1,307
By Informal Action only (43%)	560
By Formal Action (57%)	747
TOTAL	1,307

Work Carried out by Corporation in Default of Owners:

Tenders invited	83
„ submitted by contractors	57
„ accepted by Corporation	15
„ executed by contractors	15

Legal Proceedings Instituted:

Table No. I enumerates the cases where legal proceedings were instituted in respect of general housing defects or disrepair under the Public Health Acts.

Housing Improvements Secured:

Details of repairs and improvements carried out in premises are contained in Table No. II.

Premises Subject to Routine Inspection:

The analysis of premises subject to routine inspection is given in Table No. III.

Housing Act, 1936—Section II.

HOUSES NOT CAPABLE OF REPAIR AT REASONABLE EXPENSE:

The following action was taken:—

Houses represented to Health Committee	149
Demolition Orders made	49
Undertakings not to let for human habitation accepted ..	29
Closing Orders—No. of houses affected	7
No. of orders made	40

One of the Closing Orders was made against part only of a “building of architectural interest”; 4 were made against “underground rooms” in 2 houses let in lodgings; while the remaining 35 Orders were made against individual rooms at 4 houses let-in-lodgings.

There were 49 houses demolished in compliance with Demolition Orders made during 1951 or earlier years. Two houses in respect of which undertakings not to let had been accepted were subsequently demolished, while one house was demolished in anticipation of formal action.

Where undertakings not to let have been accepted, and there is no likelihood of the premises ever being re-occupied or put to any proper use, the bricking-up of all ground and basement floor openings, the boarding-up of upper floor openings, the removal of all external sanitary fittings, and the sealing of all disused drain inlets has been enforced, with a view to preventing the properties from becoming derelict.

Where seriously unfit houses have become vacant (e.g., by rehousing of the occupants, or by the death of a sole tenant) the opportunity has been taken to deal with the houses by way of “individual unfit house” procedure; during the year, 24 such houses were represented with a view to formal action. In these cases, the owner is advised at an early stage not to re-let the property, and is warned that if this should occur, the Corporation will not rehouse the new tenants.

Two houses which were the subject of operative Demolition Orders became re-occupied; one of the families subsequently removed voluntarily, but legal proceedings had to be instituted against the other tenant (17 Partridge Street), with a view to securing an order for possession. An order for possession was also

obtained against the tenant of 9 Roscoe Fold, in respect of which a Demolition Order was operative, after he had failed to comply with a notice to quit.

A case occurred where a "through" house was converted into a "back-to-back" house by the owner appropriating the rear portion of the house for an extension to his business premises next door. The department secured the rehousing of the tenants in another "through" house in the same block and in the same ownership, which became vacant shortly afterwards.

The following shows the progress made in relation to individual unfit houses since the end of the Second World War:—

		No. of Houses
No. of Houses dealt with		322
DETAILS:—		
No action beyond "representation" stage		89
Undertakings not to let		52
Demolition Orders		165
Closing Orders		9
Demolished Voluntarily		7
		<u>322</u>
Demolition Orders complied with		<u>128</u>

Survey of Houses on Pre-War Slum Clearance Programme:

In December, 1951 (following the collapse of houses in John Street and Well Street) a survey was commenced of houses on the pre-war Slum Clearance Programme, with the object of ascertaining whether any other houses were in a similarly dangerous condition or otherwise urgently in need of formal action.

Over 2,000 out of approximately 2,500 houses on the pre-war Programme were visited, the survey findings being summarised below:—

		HOUSES SURVEYED	
		Number	Percentage
No. of Houses surveyed		<u>2045</u>	
Rents:			
Less than 5/- per week		24	1.2
5/- to 10/- per week		1408	68.9
10/- to 15/- per week		259	12.7
More than 15/- per week		31	1.5
Owner-occupiers		255	12.5
Not known		68	3.2
		<u>2045</u>	<u>100.0</u>
Types of Houses:			
(a) "Through"		1786	87.3
No "Through" access and/or ventilation		259	12.7
(b) 1 Bedroom only		109	5.3
2 Bedrooms only		1667	81.5

	HOUSES SURVEYED	
	Number	Percentage
Sanitary Defects:		
Dampness	1805	88.3
Darkness	733	35.8
Insufficient air space or ventilation	717	35.1
Leaking roofs.. .. .	795	38.9
Major structural defects (e.g. bulged or leaning walls, etc.)	1090	53.3
Common yards	628	30.7
„ closets	440	21.5
Closets other than fresh water closets	642	31.4
Houses falling below Byelaw standards	1300	63.5
Degree of Disrepair:		
Extensive	501	24.5
Serious	224	11.0
Moderate	842	41.2
Minor	386	18.9
Not known	92	4.4
TOTAL	2045	100.0

Based upon these findings, a schedule was prepared of approximately 200 houses, which, it was felt, demanded priority action and which ought to be dealt with, at the latest, within the ensuing two years. The need for early attention to many of these houses is amply proved by—

- (a) the fact that no fewer than 60 of the 123 occupied houses represented during 1952 under Section 11, Housing Act, 1936, were selected for such action primarily because they were unsafe:
- (b) the fact that *at the end of* 1952, 20 of the 50 houses allocated for rehousing purposes for the whole of the calendar year 1953, had already been earmarked for dealing with houses represented in 1952.

Future Slum Clearance Proposals

In September, 1952, a special survey was made of the more important areas affected by the Slum Clearance Programme, following a request by the Housing Committee that the Health, Planning and Estates, and Housing Committees should jointly consider a resumption of Slum Clearance.

In carrying out the survey and in formulating the Department's proposals for future action, special regard was paid to the desirability of clearing areas capable of redevelopment (preferably for rehousing purposes) in preference to the clearance of small scattered groups of houses with the consequent result of creating more derelict sites.

In the same month, the Medical Officer of Health made a report to the Health Committee and the following specific recommendations were made:—

1. That the Council should now endeavour to secure Ministerial confirmation of the residue of those of their pre-war clearance schemes which had reached the stage of formal action by the Committee.

2. That the Council should, as an immediate objective, secure the clearance of the unfit houses in the Folds Road-Kay Street-Turton Street area. This area adjoins the Kay Street Housing Estate; part is reserved, under the Development Plan, for residential, and the remainder for industrial redevelopment. Out of 310 houses in this area still standing at the end of the war, no fewer than 61 (i.e., 20%) had, at the time of the report, already been put out of use as dwelling-houses, either by formal action under Section 11, Housing Act, 1936, or by voluntary demolition, or closure. At the time of the survey, 249 houses were still standing but, by the end of the year, no fewer than 15 of these had had to be dealt with as individual unfit houses, in every case on grounds of danger.
3. A schedule of 13 additional areas, comprising approximately 2,650 houses, was prepared; it was recommended that these further areas should be dealt with in order of priority as shown by the survey and as soon as circumstances might permit.

In October, 1952, the Housing Committee agreed to allocate 250 houses to enable the clearance of the Folds Road-Kay Street-Turton Street area to be effected. The necessary housing inspections had been completed before the end of 1952 and work was then steadily proceeding on the collection of necessary information as to ownership interests.

Houses-let-in-lodgings

Enforcement of the Notices served as a result of the Survey of Houses-let-in-lodgings in 1951 has continued, and the improvements secured are given in Table No. IV.

Continuous efforts have been made to locate unregistered houses-let-in-lodgings and 10 houses subject to the Byelaws have been discovered. On the other hand, no fewer than 23 houses have ceased to be houses-let-in-lodgings, while 10 owners have stated that their premises have now been converted to "Boarding Houses".

There have been no reports of homelessness being created by this substantial number of houses ceasing to be let off in lodgings, and the only inference which can be drawn is that there is a substantial pool of accommodation of this type which the owners have failed to register with the Local Authority, despite the press publicity following the Survey Report and the Annual Report of 1951. The ease with which premises of this type can be changed to "boarding houses" strengthens the submission made in the Survey Report that such premises should be subject to registration and control in the same way as houses-let-in-lodgings.

In two cases it was necessary to institute legal proceedings against the owners of houses-let-in-lodgings. The details are given in Table No. V.

Common Lodging-houses:

There are three registered common lodging-houses within the Borough, accommodating a total of 268 men. Twelve inspections were made and the following improvements secured:—

Salvation Army Hostel, 96-100 St. George's Road:

- New kitchen and food storage accommodation constructed
- Central heating system overhauled
- General repairs carried out
- Premises redecorated

Church Army Homes, 20 Crompton Street:

Sanitary accommodation and drainage overhauled

The Villiers, 26 Bank Street:

Repairs carried out to plasterwork, windows and sanitary accommodation; cleansing carried out.

SANITATION

Ashpits:

The abolition of fixed ashpits continued and 1,290 were abolished by contract at a cost to the Health Committee of £3,600; a further 8 ashpits were abolished at the expense of the Cleansing Committee. All the ashpits were disinfected prior to their abolition.

Two contractors were permitted to withdraw tenders which had previously been accepted by the Committee. In each case the contract was relet, but some reduction in progress inevitably resulted. It is hoped that the Ashpit Conversion Scheme will be completed by the middle of 1953.

Conversion of Waste Water Closets:

The Health Committee made an increased allocation of 500 grants of £8 each for the financial year commencing 1st April, 1952. The number of applications at that date approached one thousand. The five hundred grants were allocated and it was made a condition that the work should be completed by the end of December, 1952. By that date, however, it was obvious that some of the conversions were not likely to be carried out within the near future, and these grants were re-allocated. By the end of the calendar year, however, 457 grants had been paid, while a further 23 were awaiting payment; the persons whose grants were withdrawn have been registered for future consideration.

During the year 659 drainage inspections were made in respect of waste water closet conversions, and 362 inspections in respect of other drainage alterations or improvements.

Water Supplies—Smithhills Estate:

Considerable improvements were effected by the Borough Engineer to these supplies by the construction of covered brick chambers around the springs, and by fencing in the springs to exclude animals.

ATMOSPHERIC POLLUTION

"Prior Approval" of Boiler Plants:

The "Prior Approval" Panel held four meetings to discuss five proposals submitted to the Corporation under Section 44 of the Bolton Corporation Act, 1949.

One proposal was withdrawn after the Panel had indicated their inability to approve it on the grounds of the risk of grit emission; this proposal was re-submitted later, after modification on the lines suggested by the Panel. One of the schemes was approved as submitted; the remaining three were approved after modification in the light of advice given by the Panel.

Each of the four schemes approved provided for the installation of sprinkler stokers with balanced draught and burning coal with a high "fines" content. To

prevent grit emission, each proposal made provision for a grit precipitation chamber to be formed by an enlargement of the main flue between the economisers and chimney base and so dimensioned as to reduce the speed of the flue gases to 8-9 f.p.s. (In three of the schemes, this provision was made in response to the Panel's insistence upon some form of grit arrestation before approving the proposals).

Smokeless Zones:

The Health Committee gave further consideration to the establishment in Bolton of one or more Smokeless Zones, and a Report on the subject was presented to the Committee in December, 1952.

The Medical Officer of Health's Report suggested that certain areas appeared to be suitable for initial consideration by the Council with a view to their being declared as Smokeless Zones.

Prior to submitting this Report, a check survey of the proposed Town Centre Smokeless Zone (92 acres), revealed that, while there had been minor changes, these tended to cancel out leaving the overall position virtually unchanged. (A summary of the earlier Report on this area was included in the Annual Report for 1950).

The Report was accepted "in principle" by the Health Committee, and the detailed planning work preparatory to the making of Smokeless Zone Orders has now been initiated.

Smoke Observations:

A total of 105 smoke observations of industrial chimneys were made, with the following results:—

Black Smoke (minutes)*	No. of Observations
Nil	66
Nil — $\frac{1}{2}$	6
$\frac{1}{2}$ — 1	4
1 — $1\frac{1}{2}$	9
$1\frac{1}{2}$ — 2	3
2 — 3	9
3 — 4	1
4 — 5	3
5 — 10	3
18	1
TOTAL	105

*The Byelaw provides that an emission of black smoke for more than 2 minutes in any period of 30 minutes shall, until the contrary is proved, be deemed to be a "smoke nuisance."

In all cases where the observed emission of black smoke exceeded 2 minutes duration, visits were paid to the boiler houses concerned, and managerial representatives of the firms interviewed, with a view to determining the cause of nuisance. A Statutory Notice under Section 103, Public Health Act, 1936, was served in one case. Five visits were paid to boiler plants after the emission of excessive smoke other than "black smoke."

A substantial improvement has been secured at one factory where, following repeated pressure from the Department's Officers, an order was placed in 1951

SAMPLING OF MILK FOR BACTERIOLOGICAL EXAMINATION:

The results of samples of milk taken for bacteriological examination are given in Table No. VIII.

Only two samples were reported as "unsatisfactory" compared with 13 in the previous year. In the case of the "Pasteurised" milk, the failure was due to the use of an unsuitable type of filter cloth, leading to a build-up of pressure and to inadequate heat-exchange between raw and heated milk; the type of filter cloth was changed, and further samples have proved satisfactory. The failure of the "Tuberculin Tested (Pasteurised)" sample was due to a fault in the flow diversion valve; this was found and rectified, and subsequent samples have proved satisfactory.

BIOLOGICAL SAMPLING OF MILK:

Ninety-one samples of milk were taken at farms and dairies and from roundsmen, and submitted to the Pathological Laboratory at the Infirmary for examination for the tubercle bacillus. Three samples were found to be positive, and were referred to the Ministry of Agriculture Veterinary Service for action at the farm. Two of the farms concerned were within, and one was outside, the Borough; in each case the infected cow was identified and slaughtered.

One sample of milk, produced by a Bolton farmer, and sampled in a neighbouring district, was found to contain tubercle bacilli. Clinical examination failed to disclose any diseased animals, and as no movement into or out of the land had taken place since the sample was taken, notice was served under Regulation 20 of the Milk and Dairies Regulations, 1949, requiring heat-treatment of the milk before sale. Further biological sampling by the Ministry of Agriculture and Fisheries failed to locate any infected cattle, and the notice was consequently withdrawn. The notice remained in force for 46 days, and resulted in a claim for £31 12s. 3d. by the farmer concerned.

BACTERIOLOGICAL EXAMINATION OF MILK VESSELS:

Table No. IX shows the results of bacteriological examination of "rinses" of milk vessels.

The unsatisfactory samples were obtained from four dairy-men; full advice was given in each case regarding methods of sterilisation, and follow-up samples taken proved to be satisfactory in all cases.

Inspection of Meat and Other Foods

For the purpose of the inspection of human food at slaughterhouses, markets, and food shops, 4,955 visits were made by the inspectors.

MEAT INSPECTION:

The rate of slaughtering was as follows:—

	CATTLE	CALVES	SHEEP	PIGS	TOTAL
Average Weekly "Kill"	196	100	622	150	1,068
Maximum ,, ,,	410	240	1,560	236	2,446

Slaughtering is carried out in Bolton for an area comprising:—

Bolton, Little Lever, Turton, Horwich, Westhoughton,
representing a population of approximately one-quarter million persons.

The following table shows the number of animals slaughtered and inspected at the abattoirs in the Borough, with the diseased conditions grouped under two heads:—

- (1) Carcases affected with disease other than Tuberculosis;
- (2) Carcases affected with Tuberculosis.

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Total number killed and inspected. .	6,181	3,996	5,207	32,348	7,744
All diseases except Tuberculosis:					
Whole carcases condemned. . . .	3	7	48	24	16
Carcases of which some part or organ was condemned	439	1,103	1	1,214	20
Percentage of the number inspect- ed affected with disease other than tuberculosis	7.15	27.77	0.94	3.84	0.46
Tuberculosis only:					
Whole carcases condemned. . . .	5	108	3	—	15
Carcases of which some part or organ was condemned	67	1,214	—	—	138
Percentage of number inspected affected with tuberculosis . .	1.16	33.08	0.09	—	1.98

Ante-mortem inspection of all food animals is carried out at the Collecting Centre by a Veterinary Officer; post-mortem inspection is carried out by Senior Sanitary Inspectors holding special qualifications in Meat Inspection.

CYSTICERCUS BOVIS:

Two cases of generalised infection were found, the entire carcases and organs being condemned and destroyed; parts of carcases or organs were condemned and destroyed in 8 cases of localised infection.

DISEASED AND UNSOUND FOOD SURRENDERED AND DESTROYED:

	Tons Cwts. Qrs.		
Meat (Fresh)	84	13	—
„ (Tinned)	2	3	3
Boiled Ham (Tinned)	2	—	3
Fruit and Vegetables (Fresh)	1	16	2
„ „ „ (Tinned)	7	5	3
Fish (Fresh and Tinned)	1	5	3
Provisions	1	2	1
Milk (Tinned)	—	13	2
Fruit (Dried)	—	8	3
Poultry	—	3	3
Reindeer	—	3	1
Rabbits	—	1	1
	101	18	1

Food and Drugs Sampling for Chemical Examination

The following samples of foods and drugs were submitted to the Borough Analyst during 1952:—

	Genuine	Unsatisfactory	Total
Food Samples	1,000	51	1,051
Drug Samples	27	—	27
TOTAL	1,027	51	1,078

Full details of the above samples are given in Tables Nos. X, XI and XII.

Food Hygiene

BACTERIOLOGICAL EXAMINATION OF ICE CREAM:

Bacteriological examination was carried out on 152 samples and the results are given in Table No. XIII.

Unsatisfactory samples produced outside the Borough have been referred to the local authorities concerned; in the case of those samples produced within the Borough not achieving a satisfactory grading (Grade I or II), full investigations have been carried out and appropriate advice given. The major faults appear to be inadequate attention to cleansing and sterilising operations, and failure fully to appreciate that good equipment and good premises do not, of themselves, ensure a bacteriologically satisfactory product.

The trend towards the sale of completely prepacked ice cream by a wide variety of traders continues; 41 traders were registered during the year to sell ice cream on the understanding that only fully prepacked ice cream in its undisturbed wrappings would be sold.

LICENSED PREMISES SURVEY (1950)

Enforcement of the notices served in consequence of the Survey in 1950 has continued, and has resulted in substantial improvements in the Borough's licensed houses; Table No. XIV shows the improvements secured by the end of 1951 and 1952 respectively.

With the exception of major reconstructions (for which the necessary plans have been passed) the department's requirements have now been virtually met in full by those Breweries each owning fewer than 15 on-licensed premises in Bolton. The larger concerns who were responsible for most of the major improvements are continuing their efforts to comply with the provisions of the statutory enactments.

SURVEY OF CATERING ESTABLISHMENTS (1951)

All notices served in connection with the above survey have now been complied with. The following improvements in such premises were secured as a result of the survey:—

Improvements to washing facilities and hot water supplies	28
Use of sterilants in washing up	12
Structural improvements	32
Improvements to lighting and ventilation	10
Redecoration carried out (No. of rooms)	52
Improvements to sanitary accommodation, refuse accommodation, etc... ..	31
Miscellaneous improvements.. .. .	45

ROUTINE SUPERVISION OF FOOD PREMISES:

During the year 2,727 visits were paid to food premises of various types; 300 notices were served under the Food and Drugs Act, 1938 and the Food-handling Byelaws, and the following improvements were secured:—

	No. of Premises
Improvements to Floors	49
„ „ Walls and Ceilings	73
„ „ Doors and Windows	24
„ „ Drainage	24
„ „ Decorations	113
„ „ Lighting	27
„ „ Ventilation	17
„ „ Washing facilities	33
„ „ Hot Water Supplies	46
„ „ Fittings	49
Miscellaneous Improvements	208

A serious infestation of “*Ptinus Tectus*” (Australian Spider Beetle) was discovered at a small grocer’s shop kept by an elderly person, and at which the infestation had been allowed to become well-established before the assistance of the department was requested. The entire stock in the shop (down to individual packages) was inspected, and all sound stock (apart from canned and bottled goods) was temporarily removed from the premises; all infested food and all damaged packets were surrendered and destroyed, amounting to a total of 6 cwts. 40 lbs. The premises were then thoroughly cleansed and disinfested under the supervision of a sanitary inspector. No further signs of infestation have been observed. The infestation extended over a wide variety of foodstuffs, and substantial financial loss resulted from failure to seek expert assistance as soon as the infestation was noted.

“FOREIGN BODIES” IN FOODS:

Three complaints were received as to the presence of foreign bodies in foods:—

- (a) The first related to the presence of a linen-covered button in a caramel; inspection of the premises concerned showed that handling methods were reasonably satisfactory, and that all employees were wearing overalls with buttons similar to that found in the sweet; it was concluded that the presence of the foreign body was purely accidental, particularly as this is the only complaint recorded regarding this firm.
- (b) The second complaint referred to the presence of a cockroach in a meat pie. There were no obvious signs of infestation of the bakehouse, but the standards both of the premises and of food-handling were unsatisfactory. A verbal warning was given and an immediate and considerable improvement in cleanliness effected. However, the proprietor decided to give up the business and the premises have since been sold for use for another purpose.
- (c) The third complaint concerned the finding of a piece of metal in a loaf of bread. A verbal notice was given, and the firm advised to sieve all flour before use.

During the year, the ten “Codes of Practice” prepared by the Bolton Hygienic Food Traders’ Guild were circulated amongst the members of the respective trades concerned; at the same time, 2,000 posters requesting customers not to

bring dogs into food premises were also distributed to food traders; considerable help in this connection was given by Ald. J. Parkes, Secretary of the Bolton Chamber of Trade, and his staff.

PLACES OF EMPLOYMENT

589 visits were paid to "Places of Employment", i.e., Factories, Shops, and Workplaces, and 41 notices served under the Factories Act, 1937 and Shops Act, 1950; Table No. XV shows the improvements secured as a result of such action.

Legal proceedings were instituted against the Railway Executive under sec. 7 Factories Act, 1937, for failing to provide suitable sanitary conveniences for the employees at the Bolton Motive Power Depot, Crescent Road, the existing accommodation consisting only of insanitary trough closets. The case was adjourned for six months (i.e., until May, 1953), upon the Railway Executive undertaking to construct, within that period, a new sanitary annexe, comprising closets, washing facilities and cloakroom accommodation.

Tables Nos. XVI, XVII, XVIII show inspections made for the purpose of provisions as to health, cases in which defects were found, and details of outworkers' establishments.

DISINFECTION AND DISINFESTATION

Disinfection:

Routine terminal disinfection after minor infectious disease cases was discontinued, except where specially requested by the householder. The following table shows the work actually undertaken, together with comparable figures for 1951:—

	1951	1952
Rooms disinfected	489	93
Beds disinfected	822	213
Articles disinfected	2396	1509
Articles destroyed	53	45

Disinfestation:

Particulars of action taken in the destruction of rats and mice are contained in Table No. XIX.

Action taken in relation to insect pests was as follows:—

DWELLING-HOUSES							No. of houses
Bed Bugs							96
Cockroaches							75
Fleas							26
Golden Spider Beetles							11
Miscellaneous Insect Pests							9
"Precautionary" Disinfestation							38
Total							<u>255</u>

NON-DOMESTIC PREMISES

	No. of Premises
All types of insect pests	151

All insecticides used contain D.D.T. Disinfestation contracts are in force with 11 firms or institutions, covering 21 premises, and undertaking to carry out 115 treatments per annum.

Municipal Medical Baths:

The following cases were dealt with:—

	ADULTS		CHILDREN
	Males	Females	
Lice	26	14	236
Scabies	10	12	19
Impetigo	—	—	21
TOTALS	36	26	276

In view of the impending vacation of the Kingsgate premises the Health Committee decided to erect a new cleansing station at their School Hill premises, at an estimated cost of £1,350.

MISCELLANEOUS

Rag Flock and other Filling Materials Act, 1951

A detailed survey was made of the premises registered under the Act, a summary of the findings being included in Table No. XX.

Six informal samples of filling materials—

Cotton Felt	3	Hair	1
Rag Flock	1	Feathers	1

were submitted to the Prescribed Analyst; all were reported as satisfactory, with the exception of one sample of Cotton Felt which contained 11.8% of "trash" (i.e., cotton seed, leaf and stalk); the matter was taken up with the manufacturers, whose routine analyses show that their product is normally up to the prescribed standard.

Some difficulty has been experienced with the smaller firms, despite every assistance from the authorised officers, in the matter of records, due to their not being kept at all, or kept only in incorrect form, or in quite unsuitable books (e.g., cheap exercise books). An official form of printed register (comparable with the "general register" for factories) would be most helpful to such firms.

Two premises were reported to H.M. Inspector of Factories for lack of cleanliness, with a view to action being taken under the Factories Acts (such action cannot, of course, be taken by the local authority under the Rag Flock and Other Filling Materials Act, 1951, nor, in the case of "mechanical factories," under the Factories Act, 1937).

Pet Animals Act, 1951

Seventeen occupiers and their premises have been licensed under the Act, four of the premises being private dwelling-houses from which birds (3 cases) and fishes (1 case) are sold.

The major administrative problem so far encountered has been in the interpretation of the exemption clause relating to "pedigree animals", especially in relation to cage birds; guidance from the Ministry on this point would be welcomed both by local authorities and by the breeders concerned.

In one case, compliance with the licence conditions was secured only after the licensee had been given written warning that he would not be recommended for renewal of his licence for the ensuing year.

Diseases of Animals Act

ANTHRAX ORDER, 1938:

Seven notifications of suspected Anthrax were received, 3 of which were subsequently confirmed. In the absence of incineration facilities at the Corporation's destructors, the carcasses had to be destroyed by burning on open fires at the farms. These operations were severely hampered by rain in two instances. Destruction took from 16 to 25 hours, and required (on an average) $1\frac{3}{4}$ tons of solid fuel (coal or coke, timber, straw) and 30 gallons of liquid fuel (paraffin, sump oil). The total cost to the Corporation was approximately £50.

SWINE FEVER ORDER, 1938:

Two outbreaks occurred, involving 21 pigs, the disease being confirmed on both occasions.

FOWL PEST ORDER, 1936:

One outbreak was confirmed, resulting in the slaughter of 350 birds.

FOOT AND MOUTH DISEASE ORDER, 1928

During May, the Borough was included in a Scheduled Area; 243 movement licences were granted in respect of 506 cattle, 52 calves and 855 pigs, while 23 licences were countersigned.

TUBERCULOSIS ORDER, 1938:

Twenty-six cows were slaughtered during the year; 14 carcasses were totally condemned, while parts of carcasses and organs were condemned in the remaining 12 cases.

Hairdressing Establishments:

Seventy-two inspections were carried out, 9 notices were served, and 51 improvements were secured.

THE WORK OF THE BOROUGH ANALYST

There has been, once again, an increase in the total number of samples submitted for examination in the Borough Laboratories compared with previous years.

This increase is due to the greater number of samples of ice-cream submitted for bacteriological examination; an increase in the number of waters examined from public swimming baths and from the schools which have their own swimming baths; a record number of samples examined for the Waterworks Committee; and to the samples examined for other Departments and Authorities.

The percentage of samples of Food and Drugs reported as adulterated or otherwise unsatisfactory, is the lowest for a number of years, but the percentage of sausages deficient in meat content has, again, been high. Another disquieting

factor was the number of unsatisfactory samples of cereals found to contain living mites or rodent excreta, rendering the products unfit for human consumption—this is almost invariably the result of unsatisfactory storage conditions, for this type of contamination has usually been found in pre-packed commodities.

With the above-mentioned exceptions, together with a few minor offences and contraventions of the Labelling of Food Order, the foods and drugs sampled during the year may be considered as of a satisfactory standard of purity. The opinion has been expressed elsewhere that “the battle for pure food has been largely won, but vigilance is necessary to maintain that standard.”

Although pure food and pure water are largely within the reach of most town dwellers, it has to be confessed that pure air is not yet our portion.

It will be seen from the section of this report on Atmospheric Pollution, that there has been a slight reduction, compared with previous years, in the average amount of pollution, as shown by the total deposit collected in the gauges situated at selected points within the Borough. Nevertheless, averages for all districts of 21 tons per square mile, each month, of total deposit and 10½ tons per square mile of insoluble deposit (which represents the more obvious nuisance) are still high, even for an industrial town.

The housewife is fully justified in her many complaints of the extra work caused as a direct result of this pollution. The prejudicial effect on the health of the community; the damage to buildings and vegetation; the waste entailed in the prevailing method of burning solid fuel are each, and all, sufficient reasons to render the elimination of this self-inflicted nuisance so essential.

The work carried out in the Laboratories during 1952, may be summarised as follows:—

For the Health Committee:	No. of Samples
Food and Drugs	1,078
Bacteriological examination of Milks	342
Bacteriological examination of Ice-cream	155
Rinses from milk bottles and churns	148
Atmospheric Pollution samples	801
Private water supplies to farms, etc.	28
Swimming-bath waters	103
Fertilisers and Feeding Stuffs	16
Miscellaneous examinations	78
Analyses for Waterworks Committee	1,117
Analyses for other Departments and Authorities	144
Total	<u>4,010</u>

The following shows by comparison, the increase in the number of samples examined during the past four years.

	1949	1950	1951	1952
No. of Food and Drug samples	830	835	1,071	1,078
Total No. of all samples	2,251	2,577	3,831	4,010

Health Committee

Particulars of samples submitted under the Food and Drugs Act are contained in Table No. X.

Particulars of unsatisfactory food and drug samples are contained in Table No. XI.

Milk:

The following figures illustrate the monthly variation in composition of all milk samples examined during 1952:—

	No. of samples	Milk Fat %	Solids not fat %	Water %
January ..	63	3.68	8.78	87.54
February ..	64	3.48	8.70	87.82
March ..	60	3.45	8.68	87.87
April ..	70	3.44	8.67	87.89
May ..	60	3.64	8.78	87.58
June ..	61	3.60	8.88	87.52
July ..	58	3.49	8.70	87.81
August ..	52	3.62	8.82	87.56
September ..	64	3.66	8.97	87.37
October ..	68	3.87	8.95	87.18
November ..	65	3.91	8.89	87.20
December ..	70	3.75	8.77	87.48

There is a remarkable consistency in the average composition of all the milks examined each year during the past four years, as shown by the following figures:—

Year	No. of samples	Milk Fat %	Solids not fat%	Water %
1949	655	3.62	8.79	87.59
1950	543	3.59	8.83	87.58
1951	822	3.59	8.76	87.65
1952	755	3.64	8.80	87.56

Designated Milks examined by the tests specified in the appropriate regulations—

Pasteurised milk and Tuberculin Tested Milk (Pasteurised) are subjected to a phosphatase test and a methylene blue test. The phosphatase test is indicative of the efficiency of the heat treatment of the milk, and the methylene blue test is a measure of the keeping qualities of the milk.

Sterilised milk is subject to a turbidity test, and under the conditions of this test, a turbidity is shown in a sample which has been insufficiently heated, or mixed with raw milk.

As may be seen from Table No. VIII, only two samples failed in the prescribed tests.

Ice-cream:

There is no official bacteriological standard for ice-cream but the methylene blue test for provisional grading, as recommended by the Public Health Laboratory Service, is considered to be the best available means of indicating the comparative cleanliness of samples of ice cream, and in this method all samples should be either of Grade 1 or 2 standards.

150 samples of ice-cream have been examined by the above test, with the results listed in Table No. XIII.

During the year under review, the Ministry of Food decided to modify the standards for the chemical composition of ice-cream, and from the 7th July, 1952, the minimum fat content was reduced from 5 per cent to 4 per cent, and the minimum milk solids-not-fat content was reduced from 7½ per cent to 5 per cent.

Ice-cream, therefore, should now contain not less than 4 per cent fat, 5 per cent milk solids other than fat, and 10 per cent total sugar (7½ per cent being sucrose).

Of the 41 samples submitted for chemical analysis, one sample was deficient in fat (containing only 3.1 per cent) and one deficient in sucrose (containing only 6.4 per cent).

The average composition of these ice-cream samples was:—

	Bolton Manufacturers	Outside Manufacturers
Fat %	7.8	9.4
Milk solids-not-fat %	7.9	8.0
Sucrose %	9.8	9.6
Total solids %	32.3	35.4
No. of Samples	25	16

FAT IN ICE-CREAM SAMPLES:

FAT	No. of Samples	
	Bolton Manufacturers	Outside Manufacturers
2.5 to 4.0 per cent	1	—
4.1 to 5.0 „ „	2	—
5.1 to 7.5 „ „	10	2
7.6 to 10.0 „ „	7	8
10.1 and over per cent	5	6
Total	<u>25</u>	<u>16</u>

Cleanliness of Milk Bottles and Churns:

In order to determine the degree of efficiency in the methods used by local dairymen and dairies for the cleansing of their apparatus and utensils, rinses from milk bottles, kits and churns are examined by the bacteriological methods laid down by the Ministry of Agriculture and Fisheries.

A milk bottle is considered to be in an unsatisfactory condition when, immediately after washing, it contains over 600 organisms per bottle; and a churn if it contains more than 250,000 organisms per churn.

Table No. IX shows the results of the bacteriological examinations.

Atmospheric Pollution

DEPOSIT GAUGES:

Analyses have been continued, each month, during the year, of the deposits from the gauges situated at selected points within the Borough. The average monthly deposit for each site is shown in Table No. VI, for comparison with the corresponding figure for the three preceding years.

SMOKE AND SULPHUR DIOXIDE DETERMINATIONS:

Daily estimations of the concentrations of smoke and sulphur dioxide in the atmosphere of the town centre have been continued. Reports are forwarded each month, along with reports on the deposit gauges, to the Superintendent of Observations for the Investigation of Atmospheric Pollution.

The results show high concentrations of smoke and of sulphur dioxide, but they are of the same order as those from other industrial towns of similar size.

The results obtained are summarised in Table No. VII.

Fertilisers and Feeding Stuff's Act:

16 samples submitted under the above Act, consisted of 3 Fertilisers and 13 Feeding Stuff's.

Two of the Fertilisers and 10 of the Feeding Stuff's did not agree with the composition declared on the Warranty, and warning letters were sent and the Ministry of Agriculture and Fisheries notified in the appropriate cases.

Private Water Supplies to Farms and Cottages:

28 samples of drinking water (from private springs and wells) being the supplies to local farms and cottages, have been examined for purity; 17 of these were classified as unsatisfactory, having shown evidence of undesirable contamination.

Swimming Bath Waters:

103 samples of water from the Public Swimming Baths under the control of the Health Committee have been taken, during periods of use by bathers. Eight of the samples were not of a satisfactory standard of purity at the time of sampling, due to a temporary reduction in chlorine dosage.

Contract Samples:

43 Soaps, Soap Flakes and Powders were analysed, and recommendations (based on chemical composition and relative cost), forwarded to the Medical Officer of Health for the purchase of supplies of each type of product.

Miscellaneous Examinations:

FOR THE HEALTH COMMITTEE:

35 samples, examined for a variety of reasons, consisted of:—

6 Lemonades and ingredients; 4 Detergents for effect on metals; 4 Solutions for Bath Water treatment; 3 Cellar Waters; 4 Animals' Bloods; 2 Barley Kernels for mites; 3 Canned Foods for metallic contamination; 1 Bread Loaf for rodent excreta; 1 Scum from surface of baths; 2 Bacon wrappings; 2 Grits; 1 Meat for horse-flesh; 1 Human Milk and 1 Dried Milk Powder.

OTHER DEPARTMENTS AND AUTHORITIES:

Education Committee

and Bolton School: 50 Swimming Bath Waters
1 Solution of Chloros

Museums Department: 7 Waters for Hardness

1 Solution of Quinine Sulphate

Parks Department:

6 Waters from goit at Moss Bank Park

Atherton U.D.C.:	23 Deposits from Atmospheric Pollution Gauges
	23 Deposits from Sulphur Dioxide Apparatus
	1 Water for chemical examination.
Withnell U.D.C.:	7 Waters for chemical or bacteriological examination
Private sources:	25 Samples

Waterworks Committee

1,117 samples of waters, etc., have been examined during the year under review, and reports issued to the Waterworks Engineer and Manager.

More use is being made of the services of the laboratory in the control and general operations of the Water Undertaking. The miscellaneous samples examined have included metals, pipes, paints, waters from alternative sources of supply, deposits, effluents and investigation of complaints.

The raw and filtered waters constituting the whole of the domestic supply to the town and surrounding district are examined each week from a bacteriological stand-point, and for plumbo-solvency. Complete chemical analysis is carried out each month on waters from the same sources.

The raw waters are gathered from upland surfaces, and being of an acidic nature, they require treatment to prevent plumbo-solvency; the waters passing through the pressure filters are first treated with coagulants; and the whole of the supply is finally chlorinated.

The analyses have shown that this treatment has been effective in producing water of a high standard of purity.

STATISTICAL TABLES

TABLE I

General Housing Defects or Disrepair

Legal Proceedings

- CASE No. 1 PUBLIC HEALTH ACT, 1936, SECTION 93.
Failure to comply with statutory notice re general defects.
A Nuisance Order was made, and costs of 12/6 were imposed.
- CASE No. 2 PUBLIC HEALTH ACT, 1936, SECTIONS 39 AND 93.
Failure to comply with statutory notices re insufficient drainage and general defects.
Nuisance Orders were made, while fines totalling £7 10s. plus costs were imposed.
- CASE No. 3 PUBLIC HEALTH ACT, 1936, SECTION 93.
Failure to comply with statutory notice re general defects.
A Nuisance Order was made against the Owner who was subsequently fined £4 for failure to comply with the Nuisance Order.
- CASE No. 4 PUBLIC HEALTH ACT, 1936, SECTION 93.
Failure to comply with statutory notice re general defects.
A Nuisance Order was made against the Owner.
- CASE No. 5 PUBLIC HEALTH ACT, 1936, SECTIONS 39 and 93.
Failure to comply with statutory notices.
A Nuisance Order was made, requiring roof repairs to be carried out within 14 days; a fine of £1 was imposed for failure to comply with a statutory notice under the Public Health Act, 1936, re insufficient drainage.

TABLE II

Housing Improvements Secured

Repairs to Floors	75
„ „ Internal Walls	885
„ „ Ceilings	486
„ „ Doors and Windows	551
„ „ Stairs	20
„ „ Roofs	494
„ „ Chimneys and Flues	55
„ „ Eavesgutters	475
„ „ Rain Water Pipes	165
„ „ Soil and Waste Pipes	47
„ „ External Walls	163
„ „ Yards, Paths, Gates, etc.	28
„ „ Sanitary Conveniences	312
„ „ "Tippler" conversions	146
„ „ Refuse Accommodation*	76
„ „ Drainage	296
„ „ Fire-ranges	77
„ „ Sinks, Water Supplies, Wash Boilers, etc.	76
„ „ Miscellaneous	223

*i.e., excluding bins provided in connection with Ashpit Conversion Scheme.

TABLE III

Premises Subject to Routine Inspection

Common Lodging-houses	3
Houses Let-in-lodgings	173
Moveable Dwellings	25
Bakehouses	380
Basement Bakehouses	6
Fish Friers	209
Registered Premises (s.14 Food and Drugs Act, 1938) ..	599
Industrial Canteens	105
Other Catering Establishments	95
Miscellaneous Food Preparing Premises	82
Ice-cream Premises—Manufacture	36
" " —Sale Only	504
Meat Shops	217
Slaughterhouses (in use)	3
Dairies	8
Milk Shops	600
Food Shops	1,400
Licensed Premises (On-)	280
" " (Off-)	173
Food Stalls	150
Vehicles—Meat	15
" —Milk	168
Factories (Mechanical)	1,071
" (Non-Mechanical)	181
Shops	997
Outworkers' Premises	24
Factory Chimneys	205
Hairdressers' Premises	222
Places of Entertainment	42
Clubs	30
Offensive Trades	14
Knacker's Yard	1
Registered Premises (Rag Flock, etc., Act, 1951)	16
Pet Shops (Pet Animals Act, 1951)	17

TABLE IV

Houses Let-in-lodgings—Improvements Secured

	No. of Premises
Improvements to food storage accommodation	9
" " water supplies	14
" " food preparation accommodation (sinks, etc.) ..	18
" " cooking accommodation	7
" " clothes washing accommodation	7
" " baths	8
Means of extinguishing fire provided	22
Staircases—handrails provided	5
" artificial lighting provided or improved	9
Improvements to sanitary accommodation	6
" " refuse accommodation	8
Structural improvements	43
Decoration carried out	3

TABLE V

Houses Let-in-lodgings—Contravention of Byelaws Legal Proceedings

- CASE NO. 1 The owner was fined a total of £19 for failing to comply with the Byelaws; the contraventions included defective window fittings, inadequate water supplies, inadequate facilities for the storage, preparation and cooking of food and the absence of means of extinguishing fire. An application for a Nuisance Order in respect of certain structural matters was adjourned for twenty-eight days, during which time the work was carried out; the application was consequently withdrawn.
- CASE NO. 2 The owner was fined a total of £25 for failure to comply with the Byelaws. Contraventions in this case included defective rain-water pipe, defective window fittings, inadequate water supplies, inadequate clothes washing accommodation, inadequate facilities for the storage, preparation and cooking of food, inadequate means for extinguishing fire. This was the third occasion on which legal proceedings had been instituted against this owner in respect of this house; on the first occasion he had been fined £5 for obstruction of an authorised officer and on the second occasion had been fined £20 for failure to comply with the Byelaws. The house has since become vacant and has been sold.

TABLE VI

Atmospheric Pollution—Deposit Gauge Analyses

SITE	TOTAL DEPOSIT			
	per month, in tons per square mile			
	1949	1950	1951	1952
Tonge Cemetery	25.4	22.9	25.1	22.7
Havercroft	9.7	11.9	17.2	16.5
Bolton Royal Infirmary ..	16.9	21.2	24.4	19.5
Hulton Lane Hospital ..	16.3	21.1	21.3	19.1
Police Sports Ground ..	35.9	44.9	29.3	30.0
Astley Bridge Cemetery ..	23.0	19.9	23.8	20.8
AVERAGE OF 6 DISTRICTS ..	21.2	23.6	23.5	21.4

On three occasions, the contents of a gauge have been interfered with, or the gauge damaged. In these instances, the results have been estimated in order to obtain average figures for the year.

AVERAGE MONTHLY DEPOSIT IN TONS PER SQUARE MILE

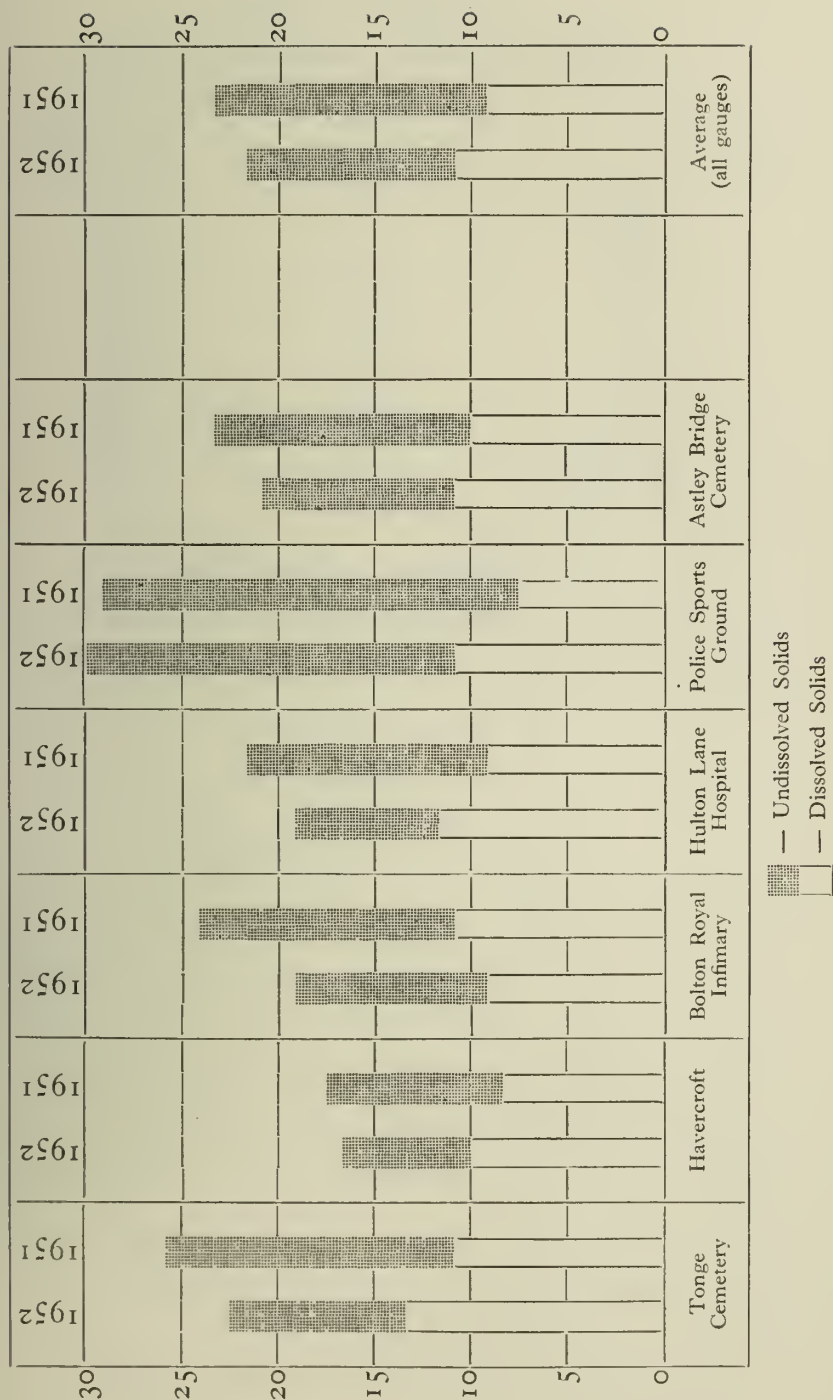


TABLE VII
Atmospheric Pollution

Smoke and Sulphur Dioxide Determinations

		DAILY AVERAGES	
		Smoke mgms. per cubic metre	Sulphur Dioxide Parts per million
January	..	0.432	0.113
February	..	0.535	0.115
March	..	0.351	0.100
April	..	0.278	0.085
May	..	0.213	0.066
June	..	0.156	0.048
July	..	0.107	0.044
August	..	0.154	0.058
September	..	0.154	0.053
October	..	0.299	0.092
November	..	0.376	0.115
December	..	0.493	0.160
Monthly Average		(0.296)	(0.087)

ATMOSPHERIC POLLUTION.
DAILY AVERAGE CONCENTRATIONS.

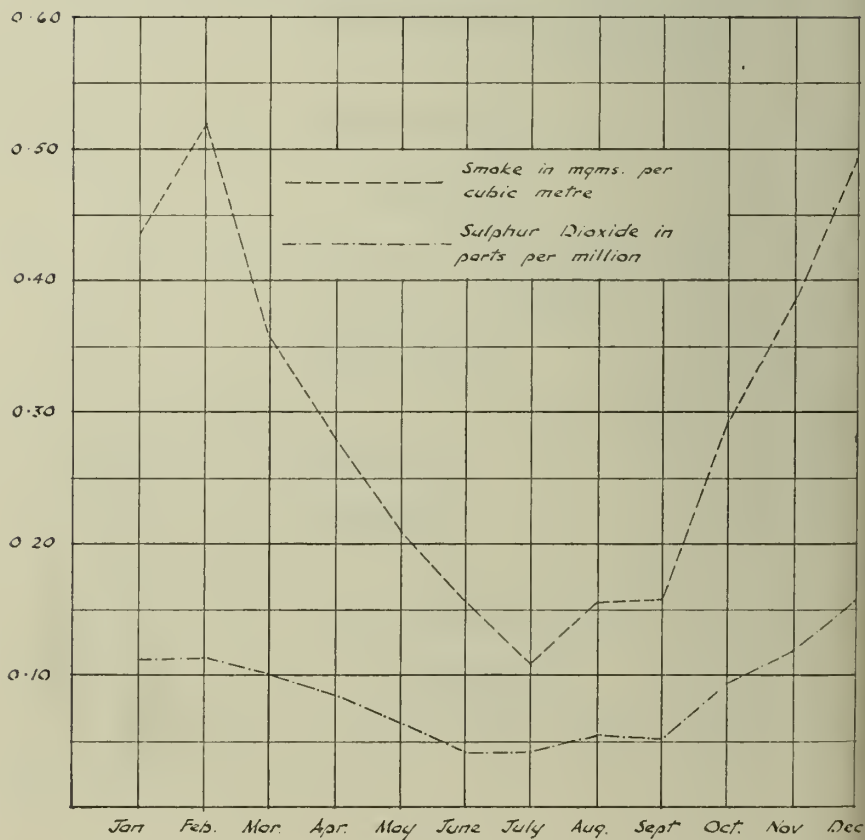


TABLE VIII

Designated Milks

Designation	No. examined	Satisfactory	Unsatisfactory
Pasteurised	97	96	1 (Phosphatase)
T.T. Pasteurised ..	98	97	1 (Phosphatase)
Sterilised	147	147	0
Total	342	340	2

TABLE IX

Bacteriological Examination of Milk Vessels

Type of Vessel	Total Samples	Satisfactory	Unsatisfactory		
			Plate Count	B. coli	Both
Milk churns ..	37	27	5	5	—
Milk Cans	17	7	5	—	5
Milk Bottles ..	94	64	18	—	12
	148	98	28	5	17

TABLE X

Sampling of Food and Drugs

Foods:	Total	Genuine	Unsatisfactory
Milk	755	730	25 = 3.3%
Baking Powder	1	1	—
Beef Suet	7	6	1
Beverage	1	1	—
Blanc Mange Powder	1	1	—
Bread Crumbs	1	1	—
Butter	6	6	—
Cake and Pudding Mixtures	5	5	—
Canned Fruit	1	1	—
Canned Vegetables	5	5	—
Cereals	31	23	8
Cheese	5	5	—
Chocolate Powder	1	1	—
Christmas Pudding	2	1	1
Cockles (Bottled)	1	1	—
Cocoa	1	1	—
Coffee	2	2	—
Coffee Extract	1	1	—
Condensed Milk	3	3	—
Cooking Fat	2	2	—

Sampling of Food and Drugs (cont'd)

FOODS:	Total	Genuine	Unsatisfactory
Custard Powder	2	2	—
Dehydrated Welsh Rarebit	1	1	—
Dressed Crab	1	1	—
Dried Mint	1	1	—
Dried Prunes	1	1	—
Evaporated Milk	2	2	—
Fish Paste	2	2	—
Fruit Chutney	1	1	—
Fruit Flavoured Wine	2	2	—
Fruit Pies	1	1	—
Gelatine	2	2	—
Ground Almonds	3	3	—
Ice-cream	41	39	2
Ice-cream Mixture	1	1	—
Jelly	9	9	—
Lard	6	6	—
Luncheon Meat	1	1	—
Margarine	7	7	—
Meat Roll	1	1	—
Meringue Powder	1	—	1
Milk Whipping Compound	1	1	—
Mincemeat	6	6	—
Mixed Herbs	1	1	—
Mussels (Bottled)	1	1	—
Nuts	2	2	—
Pepper	3	3	—
Pickles	4	4	—
Pop-corn	1	1	—
Preserves	16	15	1
Raspberries in Sauce and Syrup	2	2	—
Sage	1	1	—
Salad Cream	2	2	—
Sandwich Spread	1	1	—
Sauce	13	13	—
Sausages	27	17	10
Self-raising Flour	3	3	—
Soft Drinks	5	5	—
Soup	3	3	—
Soya	1	1	—
Spirits	14	14	—
Steak and Kidney Pudding	1	1	—
Strawberry Mousse	1	1	—
Sugar	2	2	—
Sultana Cake	1	1	—
Synthetic Cream Powder	1	1	—
Tea	9	9	—
Tea-time Tablets	1	—	1
Tomato Concentrate	1	1	—
Trifle	1	1	—
Vinegar	7	7	—
Whey Cream	1	—	1
Total Foods	<u>1051</u>	<u>1000</u>	<u>51</u>

Sampling of Food and Drugs (cont'd)

DRUGS	Total	Genuine	Unsatisfactory
Aspirin Tablets	2	2	—
Aspirin, Phenaticin & Caffeine Tablets	1	1	—
Boric Ointment	1	1	—
Camphor Ice	1	1	—
Camphorated Oil.. .. .	1	1	—
Citrate Solution	1	1	—
Glycerine	1	1	—
Health Salts.. .. .	2	2	—
Hydrogen Peroxide Solution	1	1	—
Menthol and Wintergreen Cream ..	1	1	—
Olive Oil	1	1	—
Raspberry Vinegar	1	1	—
Stomach Powder	1	1	—
Sulphur Ointment	2	2	—
Tincture of Iodine	4	4	—
Tonic Solution	1	1	—
Wintergreen Ointment	1	1	—
Zinc Ointment	3	3	—
Zinc and Castor Oil Cream	1	1	—
Total	27	27	—
Total Food & Drugs	1078	1027	51 = 4.73%

The proportion of unsatisfactory samples during the past four years has been:—

1949	1950	1951	1952
10.4%	5.7%	6.4%	4.7%

TABLE XI

Action taken in respect of Unsatisfactory Samples—
Foods and Drugs

MILK (25) These samples were made up as follows:—

	No. of Samples
Deficient in fat (1.0%—23.6%)	14
Extraneous water (0.4%—5.6%)	8
Contained extraneous water, also deficient in fat ..	3
	25

Legal proceedings were instituted in respect of 2 samples which were 7.3% and 17.3% deficient in fat; a fine of £10 was imposed, plus £3 13s. costs. Summonses were also served in respect of 3 samples containing 3.6%, 5.6% and 10.9% extraneous water, while the first and third of these samples were also 11.4% and 8.2% deficient in fat; a fine of £30, and costs of £3 3s., were imposed. Warning letters were sent in respect of all the other unsatisfactory samples.

SAUSAGES (10) Ten samples were deficient in meat content in amounts varying between 4.4% and 23.4%; one sample also contained undeclared sulphur

Sampling - Action (cont'd)

dioxide (80 p.p.m.). Warning letters were sent in 6 cases, while the remaining 4 cases were reported to the Ministry of Food.

CEREALS (8) 7 samples (4 tapioca, 1 oats, 1 barley, 1 barley kernels) were mite-infested, while 1 sample of farinoca contained rodent excreta and sacking fibres; the remaining stock was surrendered in each case.

ICE-CREAM (2) 1 sample contained only 3.1% fat (standard—4%), while another contained only 6.4% sucrose (standard—7.5%); in both cases the other constituents satisfied the prescribed standards. The local manufacturers concerned were advised as to suitable recipes (having regard to the available ingredients); subsequent samples have proved satisfactory.

BEEF SUET (1) This product was 3.2% deficient in beef fat; a warning letter was sent to the manufacturer.

CHRISTMAS PUDDING (1) This article was 16.6% deficient in fat, 19.9% deficient in sugar, was mouldy, and was unlabelled; the manufacturers withdrew the whole of the remaining stock from sale.

CANNED MEAT ROLL (1) This product contained sodium nitrite and sodium nitrate, although their presence was not declared on the label; a warning letter was sent to the packer.

"SUNNY SPREAD" (1) This contained colouring matter, which was not included in the list of ingredients; a warning letter was sent to the packer.

"TEA-TIME TABLETS" (1) This sample contained 480 p.p.m. sulphur dioxide, the presence of which was not disclosed in the list of ingredients; a warning letter was sent.

WHEY CREAM (1) This product contained a small amount of a prohibited preservative (16 p.p.m. sulphur dioxide) and was incorrectly labelled; a warning letter was sent to the manufacturers.

TABLE XII

Legal Proceedings — Food and Drugs Act, 1938, Section 3

Article	Adulteration	Fine & Costs
Whisky*	40% under proof=8.2% added water	£ s. d. 3 10 6
Milk (2 samples) ..	7.3% and 17.3% deficient in fat	13 13 0
Milk (3 samples) ..	(a) 3.6% extraneous water and 11.4% deficient in fat	
	(b) 5.6% extraneous water	
	(c) 10.9% extraneous water and 8.2% deficient in fat	
		33 3 0

*Sample purchased in 1951.

TABLE XIII

Bacteriological Examination of Ice-cream

		Manufactured in Bolton	Manufactured outside Bolton	Total
Grade I	.. .. .	35	19	54
„ II	.. .. .	23	28	51
„ III	.. .. .	30	6	36
„ IV	.. .. .	8	1	9
Void (due to presence of colouring matter)	.. .. .	1	1	2
		<u>97</u>	<u>55</u>	<u>152</u>

		Prepacked Ice-cream	“Soft” Ice-cream	Total
Grade I	.. .. .	20	34	54
„ II	.. .. .	26	25	51
„ III	.. .. .	6	30	36
„ IV	.. .. .	1	8	9
		<u>53</u>	<u>97</u>	<u>150</u>

TABLE XIV

Licensed Premises Survey
Improvements Secured

	No. of Premises	
	1951	1952
Glass-washing machine provided	1	1
Hot water supply improved	38	74
Sinks repaired or renewed	22	41
Sink waste pipes repaired or trapped	51	88
Beer lines renewed in approved materials ..	55	129
Cellars limewashed	51	83
Cellar floors repaired	39	50
Roofs, gutters, etc., repaired	7	12
Yards repaired	4	5
Improvements to drainage, refuse accommodation, etc... .. .	20	20

	No. of Rooms	
	1951	1952
Floors repaired	13	19
Walls, ceilings repaired	20	52
Doors, windows repaired	8	10
Ventilation, lighting improved	9	14
Dampness remedied	17	24
Redecoration carried out	140	175
Fittings, etc., improved	10	12

Licensed Premises Survey (cont'd)

	No. of Improvements	
	1951	1952
Improvements to sanitary accommodation	189	411
Miscellaneous improvements	2	23
Sanitary Accommodation—Major Improvements:		
Modernisation completed	9	13
„ in progress	—	7
Plans approved for modernisation	4	7
	13	27

TABLE XV

Places of Employment—Improvements Secured

Sanitary Accommodation:—		
Additional accommodation provided	5	
Accommodation reconstructed	3	
Accommodation improved	25	
Drainage improvements	11	
Ventilation improvements	7	
Miscellaneous improvements	15	

TABLE XVI

Places of Employment Inspection for Purposes of Provisions as to Health

PREMISES	Number on Register	Number of		Occupiers Prosecuted
		Inspections	Written Notices	
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities	181	7	3	—
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	1,071	62	22	1
(iii) Other Premises in which Section 7 is enforced by the Local Authority* (excluding out-workers' premises)	34	6	3	—
TOTAL	1,286	75	28	1

*Electrical Stations, Institutions, Building Operations and Works of Engineering Construction.

TABLE XVII
Places of Employment
Defects Found

PARTICULARS	Number of cases in which defects were found				Number of cases in which prosecutions were instituted
	Found	Remedied	Referred		
			to H.M. Inspector	by H.M. Inspector	
Want of cleanliness (S.1)	—	—	2	—	—
Overcrowding (S.2)	—	—	—	—	—
Unreasonable temperature (S.3) ..	—	—	—	—	—
Inadequate ventilation (S.4)	5	5	—	—	—
Ineffective drainage of floors (S.6) ..	10	10	—	—	..
Sanitary Conveniences (S.7):					
(a) Insufficient	1	1	—	2	—
(b) Unsuitable or defective ..	33	21	—	27	1
(c) Not separate for sexes ..	1	1	—	1	—
Other offences against the Act (not including offences relating to Outwork)	12	12	1	—	—
TOTAL	62	50	3	30	1

TABLE XVIII
Factories Act, 1937
Outwork (Sections 110 and 111)

Nature of Work	Section 110			Section 111		
	No. of outworkers in Aug. list required by Sect. 110 (1) (c)	No. of cases of default in sending lists to the Council	No. of prosecutions for failure to supply lists	No. of instances of work in unwholesome premises	Notices served	Prosecutions
Wearing (Making etc.) apparel ..	21	—	—	—	—	—
Brush making ..	2	—	—	—	—	—
Stuffed Toys ..	1	—	—	—	—	—
TOTAL ..	24	—	—	—	—	—

TABLE XIX
Destruction of Rats and Mice

	TYPE OF PROPERTY				
	Local Authority	Dwelling Houses	Agri-cultural	All other (including Business and Industrial)	Total
I. Total number of properties in Local Authority's District	151	52,086	250	8,500	60,987
II. Number of properties inspected by the Local Authority as a result (a) of notification or (b) otherwise.	(a) 60	467	10	236	773
	(b) 110	113	14	102	339
III. Number of properties (under II) found to be infested with rats.	Major 24	1	12	25	62
	Minor 89	436	4	211	740
IV. Number of properties (under II) found to be seriously infested by mice.	47	104	1	80	232
V. Number of infested properties (under III and IV) treated by the Local Authority.	160	541	17	316	1,034
VI. Number of notices served under Section 4:— (1) Treatment	Nil				
(2) Structural Works (i.e. proofing)	Enforced under Public Health Act, 1936.				
VII. Number of cases in which default action was taken by Local Authority following issue of notice under Section 4.	Nil				
VIII. Legal Proceedings . .	Nil				
IX. Number of "block" control schemes carried out	29				

TABLE XX

Rag Flock and Other Filling Materials Act, 1951

Survey of "Registered" Premises

No. of Registered Premises	16
Scale of Business:—Factory-type businesses	7
Small or medium scale businesses	9
	<u>16</u>

Type of Work carried out:—

	New Work only	"Re-makes" only	Both	Total
Upholstery	3	2	4	9
Bedding	3	1	2	6
Cushions (interior sprung)	—	—	1	1
„ (others)	1	—	—	1
"Carricots"	1	—	—	1
	<u>8</u>	<u>3</u>	<u>7</u>	<u>18</u>

Structural Condition of Premises:—

Good—2 Satisfactory—9 Fair—5 Total—16

Cleanliness of Premises:—

Good—2 Satisfactory—8 Fair—4 Poor—2 Total—16

Re-making and Re-conditioning (10 premises):—

7 firms accept repair work direct from customer;

2 „ „ „ „ only from retailers or other firms;

2 „ „ second-hand articles in part-payment for other goods, and re-sale after re-conditioning.

Separation of New Work and Reconditioning:

No separation practised 4

Work done in separate rooms 1

Work done in same room, but at different times 2

Materials Used:—

Cotton Felt (12)

„ Millpuffs (6)

„ Flock (1)

„ Wadding (1)

Wool Felt (8)

„ Flock (6)

Rag Flock (8)

Hair (10)

„ (Rubberised) (4)

Hair/Fibre Mixture (3)

Feathers (4)

Kapok (4)

Down (3)

Warranties are obtained from their suppliers by 11 of the 16 firms; the products used are B.S.I.-certificated at 12 of the 16 premises; all rag flock suppliers are licensed by the local authorities in whose areas they are situate.

Special storage arrangements (e.g., stillage, hoppers, bins, etc.) are provided at 3 only of the 16 registered premises.

Records:—

As to Filling Materials—Unsatisfactory at 12 out of 16 premises.

„ „ Second-hand articles—Unsatisfactory at 7 out of 10 premises.

WATER SUPPLIES

I am indebted to Mr. H. R. Davenport, Waterworks Engineer and Manager, for the following information:—

The water supply of the area and of its several parts was satisfactory both as regards quality and quantity.

The water is filtered at five filter stations. Normally samples of both the raw and filtered water are subjected to full bacteriological examination each week and to full chemical analysis each month by the Borough Analyst. Special examinations and analyses are made as circumstances require.

During 1952 a total of 243 samples of raw and 245 samples of filtered water received bacteriological examination, and 59 samples of both raw and filtered water received chemical analysis. The results showed that generally filtration and treatment of the raw water were necessary, and that the filtered and treated water was of excellent quality, B. Coli being absent in almost all cases in 100 mls. All water is filtered and treated before passing into supply.

From tests made weekly the water was shown to have no plumbo-solvent action.

No action was required to be taken in respect of any form of contamination.

The public water mains afforded a direct supply to a population of approximately 167,000 and 55,212 dwelling houses—no supply was afforded to dwelling houses by stand-pipes.

BATHS AND WASHHOUSES

In Bolton the Baths and Washhouses are administered under the direction of the Medical Officer of Health. The following facilities are available:—

Baths:

High Street	.. ..	1 Plunge 9 Slipper Baths
Bridgeman Street	.. ..	2 Plunges 25 Slipper Baths
Moss Street	.. ..	2 Plunges 18 Slipper Baths
Rothwell Street	.. ..	15 Slipper Baths
Great Moor Street	.. ..	Turkish Baths

Washhouses:

Moss Street	.. ..	12 hand-washing stalls 6 electric rotary washing machines
Rothwell Street	.. ..	18 hand-washing stalls 12 electric rotary washing machines

The number of electric rotary washing machines at Rothwell Street was increased from 8 to 12 in September, 1952.

A Washhouse Transport Service was operated until the 29th November, 1952, when it was withdrawn owing to inadequate demand.

The following table shows the attendances at the various establishments during the last three years.

	Swimming Plunges			Slipper Baths			Washhouses		
	1952	1951	1950	1952	1951	1950	1952	1951	1950
High St. Baths	56,575	57,438	49,628	14,606	17,791	17,136	—	—	—
Bridgeman St. Baths ..	84,880	75,902	74,966	33,546	34,245	32,883	—	—	—
Moss St. Baths and Wash-houses ..	81,244	77,007	81,788	36,750	40,312	38,058	29,915	30,622	28,441
Rothwell St. Washhouses	—	—	—	17,221	18,486	17,569	47,801	48,374	48,548

There were 6,167 attendances at the Turkish Baths during the year. This represents an increase of 1,442 over the attendances for 1951.

The attendances shown for the swimming plunges for 1952 include attendances by holders of scholarship tickets awarded under the Bolton Scholarship for the Encouragement of Swimming, and holders of the bronze medallion of the Royal Life Saving Society, who are awarded a free ticket for 12 months.

The number of swimmers has remained remarkably constant over the past twelve months, but there was a drop of about 7 per cent in attendances at the slipper baths. There was a decrease of a little over 1 per cent in the number of people using the washhouses.

Swimming Clubs are granted facilities for after-hours swimming, for the holding of galas, and for the promotion of water polo matches.

School children are admitted to the swimming baths, from April to October, under arrangements made with the Education Committee. During the year there were 53,369 attendances by children.

(Compiled at Queen's Park Observatory by E. HENDY, F.R.Met.S.).

Rainfall — Average 1887-1952 = 44.672"

PART V

OTHER SERVICES

Medical Examinations

National Assistance Act, 1948
(Section 47)

MEDICAL EXAMINATIONS

The medical staff of the department carried out the examination of persons appointed to superannuable posts on the staff of the Corporation, and of those retired on medical grounds, in addition to the medical examinations for entry to the Sickness Payment Scheme.

During the year, 670 persons were examined for the purposes of the Superannuation Scheme, and 11 were found unfit for entry.

There were 618 examinations in connection with the Sickness Payment Scheme, and 67 were found unfit for entry.

The examinations involved referring 68 persons to a Mass Radiography Centre for X-ray examinations, and 14 persons to Consultant Physicians or Surgeons for further examination.

PERSONS IN NEED OF CARE AND ATTENTION

Two persons were removed to hospital under an order obtained under the National Assistance Act, 1948, Section 47, as amended by the National Assistance (Amendment) Act, 1951.

The first case was a man aged 70, living alone in one small upstairs room in a very dilapidated house, the remainder of which was used as a stores. He was bedridden and extremely dirty. He was not receiving any attention, except that a neighbour occasionally gave him some food. He refused admission to hospital, and an order was obtained on the 18th March removing him to the chronic sick ward of a local hospital as a person who, being aged and infirm and living in insanitary conditions, was unable to devote to himself, and not receiving from other persons, proper care and attention. This patient died in hospital on the 25th March.

The second case was a blind woman, aged 71, living alone in a house of indescribable squalor. With the activities of a home help the conditions in the house were improved. The patient was receiving a certain amount of food collected by neighbours, but she had an extensive bed sore over her buttocks and a complete vaginal prolapse. She had no relatives, and was bedridden.

In view of the deterioration in her condition, and the fact that she was in need of care in hospital, an order was obtained on the 26th May because she was a person suffering from grave chronic disease and unable to devote to herself, and not receiving from others, proper care and attention. A notice was subsequently served on her with a view to obtaining a further order under Section 47 of the Act, but the patient died on the 11th June before the expiry of the original order.

COUNTY BOROUGH OF BOLTON
EDUCATION COMMITTEE



ANNUAL REPORT

OF THE

School Medical Officer

FOR THE YEAR 1952

RONALD W. ELLIOTT,
M.D., M.Sc., D.P.H.,
School Medical Officer

SPECIAL SERVICES SUB-COMMITTEE

Municipal Year 1952-1953

COUNCILLOR A. TOWNEND (*Chairman*)

COUNCILLOR B. CROSSLEY (*Vice-Chairman*)

ALDERMAN MRS. H. WRIGHT, J.P.

COUNCILLOR MRS. N. BOWYER

COUNCILLOR C. H. LUCAS

COUNCILLOR N. ROGERS, M.Com.

COUNCILLOR MRS. E. M. RYLEY

COUNCILLOR F. SINGLETON

COUNCILLOR E. TAYLOR

MRS. M. H. M. LORD (Co-opted Member)

MR. A. HOWCROFT „ „

MR. J. E. PHYTHIAN ,, ,,

Mr. H. E. R. TOWNSEND ,, ,,

STAFF OF THE SCHOOL HEALTH SERVICE

School Medical Officer	Dr. Alexander Hutchison
Deputy School Medical Officer	Dr. Hugh O. M. Bryant
Assistant School Medical Officers	Dr. John Litt
	Dr. Jean Parker
	(Resigned 9th Feb., 1952)
	Dr. Audrey Seddon
	(Commenced 1st April, 1952)
	Dr. Pauline Blockey
	(Commenced 1st April, 1952.
	Resigned 6th Oct., 1952)
	Dr. Rosa M. Galloway
	(Commenced 15th May, 1952)
	Dr. Margaret McCaffrey
	(Commenced 7th July, 1952)

To facilitate the closer integration of the Maternity and Child Welfare and School Health Services, it was decided that all future Assistant School Medical Officers should work part-time in both services and therefore, with the exception of Dr. John Litt, all these officers are appointed as Assistant Medical Officers of Health and Assistant School Medical Officers.

Ophthalmic Surgeons	Dr. J. Ratcliffe (Part-time)
	Dr. J. Morrison (Part-time)
Ear, Nose and Throat Surgeons	Mr. W. B. McKelvie (Part-time)
	(Resigned 25th July, 1952)
	Mr. G. G. Mowat (Part-time)
Senior Dental Officer	Dr. Donald Davies
Dental Officers	Mr. Stanley Bray
	Miss Bessie Wignall
	(Resigned 31st May, 1952)
	Miss Dorothy Coates
	Mr. Alan Hodgkinson
	(Resigned 31st Oct., 1952)
	Mrs. Joyce Burton
	(Commenced 25th Feb., 1952)
Educational Psychologist	Mr. A. E. D. Schonfield
Social Worker	Miss E. C. Ross
Speech Therapist	Mrs. F. Barber
Superintendent Health Visitor	Miss F. Holden
and School Nurse	
Deputy Superintendent Health	Miss J. MacEachern
Visitor and School Nurse	(Commenced 10th Nov., 1952)

Nursing Staff

At the 31st December, 1952, there were 4 full-time School Nurses and 20 Health Visitors working part-time on School Health, and part-time on Maternity and Child Welfare work—the equivalent of 10 full-time School Nurses.

The Superintendent Health Visitor supervises the work of the staff and was assisted from the 10th November by a Deputy.

Dental Attendants

There were 5 dental attendants on the 31st December.

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Health Department,
Civic Centre,
Bolton.

28th August, 1953

*To the Chairman and Members of the Special Services Sub-Committee
of the Bolton Education Committee.*

The work of the School Health Service during the year 1952 was administered throughout that period by my predecessor. I am therefore in a position to look at the situation objectively and I find that there has been progress, and consolidation of past efforts, in spite of difficulties created for certain parts of the work by national conditions; for school dentistry in particular.

Routine inspections have increased in number and as might be expected, the number of defects found at these inspections has also increased—largely due to the fact that in 1952, the greater proportion of the children examined were in the school entrant group. This group has always been the source of more defects than any other for it is at this age that children enter a new environment where medical inspection is compulsory and many of the children, unfortunately, may not have had a medical review since the first year of life when they attended the infant welfare clinic. Consequently, visual defects and diseases of the ear, nose and throat which account for well over half the cases, were very common.

To assist in the work of the treatment of minor ailments, "The Withins" Clinic was opened during the year and has been satisfactorily operated since the 17th November.

I would like to draw the attention of all concerned to the large number of children who enter school and who have never been immunised against diphtheria or whooping cough. I cannot too strongly emphasise the importance of early immunisation against diphtheria and whooping cough; certainly before the age of one year. Parents must realise their responsibility in this respect and we should never have the situation whereby as many as 734 children in one year have to undergo immunisation for the first time after they have entered school.

There would appear to be no great change in the standard of nutrition in school children as observed by the medical officers at their routine inspections. The fact that the percentage of school children taking dinner at school is gradually decreasing has led to anxiety in some quarters concerning the nutritional state. It would appear that so far, this has been maintained and in this respect, it is of interest to note that nearly 80% of the children are still taking milk in school.

The School Dental Service, owing to the shortage of staff, has had to adopt various expedients but in spite of these, the situation was quite beyond the available resources. However, some progress has been made and at least a service is being given to the more urgent cases, unfortunately, however, at the expense of constructive dentistry. The two surveys reported by the Senior Dental Officer tell their own story of the huge task facing us. The fluorinisation of water supplies and the employment of dental nurses, both of which have been recently suggested as answers to these difficult problems, are long-term projects and will not have an effect for some years even if adopted now. These new ideas should be encouraged by every means possible but with the full knowledge that in the interval it will be necessary to "make do and mend."

The work of the Child Guidance Centre is limited by the absence of a psychiatrist from the staff. It has been found impossible to find such a person as yet. Although the Educational Psychologist can adequately deal with the educational problems at the Centre, those cases needing psychiatric care cannot be fully met.

My thanks are due to all those members of the School Health Service who have made this report possible.

RONALD W. ELLIOTT,
School Medical Officer

GENERAL INFORMATION

No. of school children	...	...	...	...	...	...	...	23,727
No. of Nursery school children	...	...	...	...	...	...	...	176
Primary	..	..	..	..	..	..	..	18,038
Secondary Modern	..	..	..	..	..	..	..	4,043
Secondary Technical	...	...	...	...	...	...	...	454
Secondary Grammar	...	...	...	...	...	...	...	681
Special Schools	...	...	...	...	...	...	...	335
No. of schools maintained by the Authority...								92
No. of Primary Schools	...	...	...	...	...	...	...	73
Secondary	..	..	..	..	..	..	..	14
Nursery	..	..	..	..	..	..	..	2
Special	..	..	..	..	..	..	..	3

Age Groups of Children subject to Periodic Medical Inspection

Entrants: Children starting school.

Second Age Group: Children who are in their last year of attendance at a Primary School (i.e. 10 or 11 years old).

Third Age Group: Children who are in their last year of attendance at a Secondary School (i.e. age 14 or over).

In addition, children are given special examinations at the request of parents or teachers and may be re-examined in order to see that their health is improving.

MEDICAL INSPECTION OF SCHOOL CHILDREN

Periodic Medical Examinations

Number of children examined in the prescribed Groups:

Entrants	...	...	...	...	...	...	...	...	...	4,551
Second Age Group	...	...	...	...	...	...	...	...	...	135
Third Age Group	...	...	...	...	...	...	...	...	...	1,704
Total	...	...	...	...	...	...	...	...	...	6,390
Other Periodic Examinations	...	...	...	...	...	...	...	...	...	354
Grand Total	...	...	...	...	...	...	...	...	...	6,744

Other Examinations at School

Special Examinations	...	...	...	...	...	...	...	...	...	8,574
Re-Inspections	...	...	...	...	...	...	...	...	...	7,496
Total number of children examined at school	...	...	...	...	...	...	...	...	...	16,070

It will be noticed that relatively few children in the Second Age Group were examined during the year. This was due to the fact that the increase in medical staff did not become effective until the Summer term.

RESULT OF INSPECTIONS

(a) Pupils Found to Require Treatment

Group (1)	For defective vision (excluding squint) (2)	For any of the other conditions recorded in Table (b) (3)	Total individual pupils (4)
Entrants	747	1,086	1,619
Second Age Group	30	44	64
Third Age Group	240	237	450
Total (prescribed groups)	1,017	1,367	2,133
Other Periodic Inspections	44	133	169
Grand Total	1,061	1,500	2,302

(b) Defects Found

Defect or Disease (1)	Periodic Inspections		Special Inspections	
	No. of defects		No. of defects	
	Requiring treatment (2)	Requiring to be kept under observation but not requiring treatment (3)	Requiring treatment (4)	Requiring to be kept under observation but not requiring treatment (5)
Skin	174	80	293	4
Eyes:				
a. Vision	1061	437	127	16
b. Squint	157	108	22	2
c. Other	51	25	69	5
Ears:				
a. Hearing	78	116	116	74
b. Otitis Media	104	96	115	14
c. Other	53	27	120	34
Nose and Throat	312	447	524	135
Speech	41	134	54	19
Cervical Glands	65	256	14	15
Heart and Circulation	47	86	34	24
Lungs	60	199	121	62
Developmental:				
a. Hernia	22	47	4	—
b. Other	14	99	11	3
Orthopaedic:				
a. Posture	48	84	10	—
b. Flat foot	9	72	11	2
c. Other	90	125	65	16
Nervous system:				
a. Epilepsy	3	23	9	10
b. Other	11	41	14	5
Psychological:				
a. Development	8	28	54	7
b. Stability	10	52	47	15
Other	80	38	288	69

ARRANGEMENTS FOR TREATMENT AND SPECIAL EXAMINATIONS

Minor Ailments:

Minor Ailments Clinics are available at the following school clinics:—

Charles Street Clinic, off Folds Road.

Robert Galloway Clinic, Ward Street.

Astley Bridge Clinic, Moss Bank Way.

The Withins Clinic, Withins Lane, Breightmet.

A doctor is in attendance twice a week at the Charles Street and Robert Galloway Clinics and once a week at Astley Bridge and The Withins Clinics.

The Withins Clinic was brought into use on the 17th November, 1952, and provides for an area in which it is expected there will be considerable housing development. The Clinic is on the ground floor of a large house and is situated approximately in the centre of the district due to be developed.

Treatment Centres where a school nurse only is in attendance, are established at the following schools:—

Brownlow Fold

Gaskell Street

Top o'th' Brow

Whitcroft Road.

Dental Surgeries:

The six Dental Surgeries are situated as follows:—

Charles Street School Clinic (2 Surgeries)

Robert Galloway Clinic (2 Surgeries)

Astley Bridge School Clinic (1 Surgery)

The Withins School Clinic (1 Surgery)

Due to shortage of staff, one of the surgeries at Charles Street and one at The Withins were not staffed during the year. The remainder were open full-time.

Arrangements are made to deal with children who need immediate dental attention.

Aural Clinics:

The Consultant Aural Surgeon attends once a fortnight at the Charles Street School Clinic and once a fortnight at the Robert Galloway Clinic to see by appointment school children who are referred by the Assistant School Medical Officers.

Ophthalmic Clinics:

The Consultant Ophthalmic Surgeons attend Charles Street School Clinic and the Robert Galloway Clinic for a total of 17 hours per week to see by appointment children referred by the Assistant School Medical Officers. These Clinics are held as follows:—

Monday afternoon	}	at Charles Street School Clinic
Wednesday morning		
Friday morning		
Monday morning	}	at the Robert Galloway Clinic
Wednesday afternoon		
Friday afternoon		
Saturday morning		

Child Guidance:

A Child Guidance Centre staffed by an Educational Psychologist and a Psychiatric Social Worker, is situated at the Robert Galloway Clinic and children are seen by appointment.

Speech Therapy:

A Speech Therapy Centre staffed by one Speech Therapist is available at the Robert Galloway Clinic. Children attend by appointment if referred by the Assistant School Medical Officers.

Audiometry:

Arrangements are made with the Thomasson Memorial Special School for the Deaf for the examination by appointment of children referred by the Assistant School Medical Officers. A Pure Tone Audiometer is used and the resultant audiogram is then available for the medical officer.

The following table shows the number of Pure Tone Audiometer Tests carried out during the year, together with the number of children found by this method to need special education or treatment.

Hearing Tests	Boys	Girls
No. of Pure Tone Audiometer Tests carried out during 1952...	41	25
No. referred to Manchester University for hearing tests... ..	3	3
No. of children found to be totally deaf and recommended for admission to the Thomasson Memorial Special School (History of T.B. Meningitis in each case. 1 girl totally deaf and blind)	1	2
No. of children found to be partially deaf and recommended for admission to the Thomasson Memorial Special School ...	1	2
No. of partially deaf children recommended for Lip-Reading Classes	5	3
No. of partially deaf children recommended for hearing aids ...	3	3

Other treatment:

Arrangements for other types of treatment (paediatric, orthopaedic, etc.) are made with the consultant physicians and surgeons of the local hospitals. In each case, the family doctor is consulted before the appointment is made and is sent a copy of the appropriate report.

NOTES ON SPECIFIC DEFECTS

Diseases of the Skin:

	Number of cases treated or under treatment during the year	
	by the Authority	otherwise
Ringworm (i) Scalp	—	—
(ii) Body	—	1
Scabies	6	—
Impetigo	51	3
Other skin diseases	236	48
Total	293	52

Ear, Nose and Throat:

During the year 404 children were seen for the first time by the aural surgeon. The total number of attendances was 536.

There was some difficulty in securing treatment at hospital for the removal of tonsils and adenoids, but as the Aural Surgeon is also on the staff of the Hospital Management Committee, discussions and consultations led to steps being taken which resulted in considerable diminution of the waiting period.

In October, Mr. McKelvie, who had been an Aural Surgeon to the Authority for many years, resigned and arrangements were made for Mr. Mowat to increase the number of his sessions and so take over Mr. McKelvie's work.

The following table shows the numbers of diseases and defects of the Ear, Nose and Throat for which treatment was initiated by the Assistant School Medical Officers in the Minor Ailment Clinics or by the Specialist at the Aural Clinic.

	Number of cases treated	
	by the Authority	otherwise
Received operative treatment		
(a) for diseases of the ear... ..	—	3
(b) for adenoids and chronic tonsillitis	—	274
(c) for other nose and throat conditions	—	11
Received other forms of treatment ...	235	41
Total	235	329

Diseases of the Eye:

The Ophthalmic Surgeon saw 1,350 children for the first time. The total number of attendances was 5,966. Of these 5,497 were for refractions and 469 for other reasons.

Arrangements for the supply of spectacles are made through the Supplementary Ophthalmic Services of the Local Executive Council. If the Ophthalmic Surgeon recommends spectacles, the parents are given the appropriate Executive Council form to take to any optician of their choice. The spectacles are then supplied through the National Health Service. Children attend the clinic again to ensure that the spectacles are, in fact, suitable.

The following table shows the number of cases of eye diseases, defective vision or squint, for which treatment was initiated by the Assistant School Medical Officers and given either in the ophthalmic clinic or otherwise.

	Number of cases dealt with	
	by the Authority	otherwise
External and other, excluding errors of refraction and squint	141	1
Errors of refraction (including squint) ...	1,209	32
Total	1,350	33
Number of pupils for whom spectacles were		
(a) Prescribed	1,028	32
(b) Obtained	862	32

The following table shows by age groups and defects, the number of children found at periodic medical inspection to require attention for defects of the eye:—

Defect	Age Group			
	Entrants	Second Age Group	Third Age Group	Other Periodic Inspections
Defective Vision ...	747	30	240	44
Squint	138	6	7	6
Blepharitis	6	1	7	4
Conjunctivitis ...	—	1	3	—
Other	19	2	7	1

Defective Colour Vision:

Routine colour vision testing by the use of the Ishihara Charts was introduced for children in the third age group. It was considered that information as to a child's colour vision had a bearing on future employment and training and that it was important that any defect of this nature should be ascertained before leaving school. 1,704 children were examined and the total of 39 colour blind pupils discovered was made up as follows:—

	Boys	Girls
Secondary Modern and Senior Schools	30	1
Technical Secondary Schools	7	—
Grammar School	1	—
Total	38	1

Orthopaedic Defects:

A total of 233 children were found to have orthopaedic defects, 147 on periodic medical inspections and 86 at school clinics. These defects were made up as follows:—

Defective posture	58
Flat Feet	20
Other	155

Children with orthopaedic defects were if necessary, referred to the Orthopaedic Out-Patients at the Bolton Royal Infirmary and close liaison is maintained with the consultant surgeon and the physiotherapists at this clinic. The Assistant School Medical Officers have visited the clinic on many occasions during the year and 72 school children were referred to this clinic.

Uncleanliness:

Routine head inspections were carried out on all school children in maintained schools, 42,923 such examinations being made and 1,894 individual pupils were found to be verminous. The percentage of verminous pupils in the school population was 7.98 compared with the national average of 6.

157 "Notices to Cleanse" under Section 54 (2) of the Education Act were issued and 60 "Cleansing Orders" under Section 54 (3). These figures indicate that most of the pupils affected had a minor degree of infestation and that parents had dealt with the situation within a short time. Supplies of cleansing materials, principally D.D.T. emulsion, were available through the School Health Service and fine-tooth combs could be purchased by the parents.

Arrangements were made in conjunction with the Health Department for the cleansing of unclean and verminous children at the Municipal Medical Baths, Kingsgate, and during the year 34 boys and 188 girls were cleansed either at parents' request or under a "Cleansing Order."

INFECTIOUS DISEASES IN SCHOOLS

The only epidemic of note was measles commencing in July and reaching its peak in December. Children affected were mainly those of the 2, 3, 4 and 5 age groups. The cases were generally mild in character. The table shows by months, the number of children up to 15 years of age who were affected during the year by the commoner infectious diseases.

Disease	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Scarlet Fever	44	40	40	27	29	20	15	23	11	36	24	25	334
Measles	5	9	2	13	29	75	103	145	83	231	582	1,064	2,341
Whooping Cough ..	1	5	6	5	10	3	27	23	21	27	33	56	217
Pneumonia	15	6	3	4	1	1	4	7	2	4	8	23	78
Poliomyelitis (Paralytic)	1	—	—	—	—	—	—	4	—	—	—	—	5
Poliomyelitis (Non-Paralytic) ..	—	—	—	—	—	—	—	—	—	—	1	—	1
Enteric Fever Paratyphoid B.H. ..	—	—	—	—	—	—	1	—	—	—	—	—	1
Dysentery	14	15	22	17	22	4	2	1	2	2	5	31	137
Food Poisoning .. .	3	3	3	—	2	3	—	7	—	—	1	—	22
Erysipelas	—	—	—	—	—	—	1	—	—	—	—	1	2

The following table shows by age, the number of notifications of the commoner infectious diseases occurring in children up to 15 years of age during the year.

Disease	AGE																	Total
	Under 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Scarlet Fever	1	3	11	29	63	56	63	35	28	9	8	10	8	4	6	-	334	
Measles	59	120	430	410	491	450	268	57	24	13	7	3	7	2	-	-	2,341	
Whooping Cough ..	15	10	35	36	44	49	17	5	5	-	-	-	-	-	-	-	217	
Pneumonia	13	6	15	6	9	11	7	2	2	2	-	-	3	1	-	1	78	
Poliomyelitis (Paralytic)	-	-	-	-	2	1	1	1	-	-	-	-	-	-	-	-	5	
Poliomyelitis (Non-Paralytic) ..	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	
Enteric Fever (Paratyphoid B.H.) ..	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	
Dysentery	6	21	28	28	27	5	7	1	4	4	2	1	2	-	-	1	137	
Food Poisoning ..	1	-	2	4	8	1	-	2	1	-	-	1	1	1	-	-	22	
Erysipelas	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	2	

IMMUNISATION

Immunisation against Diphtheria and Whooping Cough was offered to children in their first year at school and a total of 734 children commenced a course of injections for primary inoculation, of whom 375 completed the course within the year; the remainder were due to do so within the first two months of 1953. A total of 1,603 children received a reinforcing dose. The injections were carried out at the schools.

THE NUTRITIONAL STATE OF SCHOOL CHILDREN

Results of Examinations carried out at Routine Medical Inspections:

The general condition of school children has remained satisfactory. Of the 6,744 children examined in school, 2,149 or 31.86% were above average, 4,414 or 65.45% average, and 181 or 2.69% below average.

The following table gives details under the various age groups. The figure for the second age group, in view of the small number of children examined, cannot be regarded as representative.

Age Groups (1)	Num-ber of Pupils In-spected (2)	Above Average		Average		Below Average	
		No. (3)	% of Col. 2 (4)	No. (5)	% of Col. 2 (6)	No. (7)	% of Col. 2 (8)
Entrants... ..	4,551	1,461	32.1	2,964	65.13	126	2.77
Second Age Group	135	21	15.56	94	69.63	20	14.81
Third Age Group	1,704	565	33.16	1,123	65.9	16	0.94
Other Periodic Inspections...	354	102	28.81	233	65.82	19	5.37
Total	6,744	2,149	31.86	4,414	65.45	181	2.69

The Milk in Schools Scheme:

The number of children taking milk in school under the above scheme was such as to give an average throughout the year of 79.98% of all children in school. All the milk is derived from sources which are satisfactory.

The School Meals Service:

During 1952, a total of 2,448,310 dinners were produced in the School Kitchens and the percentage of school children taking dinner in school was 44.15. The meals are produced in six Central Kitchens and there are eleven Kitchen/Dining Centres. It is most desirable that regular inspection of School Kitchens and Dining Centres should be carried out by the Sanitary Inspectors on the staff of the Health Department, for although during the year there was no outbreak of food poisoning which could be traced to the School Meals Service, with so large a number of children eating food prepared in central kitchens, there is obviously a potential risk of infection.

DENTAL HYGIENE

Report of the Senior Dental Officer

During the year, the dental service was maintained at its previous level, additional staff not being forthcoming. The professional staff has been at no more than half the establishment for several years and though a position of equilibrium has been reached the service cannot be regarded as satisfactory while eighteen months and over elapses between inspections in several schools, and one patient in three treated is a 'casual' attender.

At the Astley Bridge surgery where a full-time officer has responsibility for 3,000 children every child was inspected during the year, 'casual' attenders were reduced to 271, and 2,951 fillings were completed, whereas in a town centre surgery with responsibility for some 6,500 children, 2,237 were inspected in schools, 1,419 'casual' attendances were made and only 284 fillings completed.

The number of general anaesthetics administered for extractions was deliberately increased to minimise the number of visits required to complete treatment and to give more patients the chance of treatment. General anaesthesia is a mode of treatment very acceptable to young patients and its use is much appreciated by their parents. 2,870 anaesthetics were given compared with 1,354 in 1951, 12,412 teeth were removed compared with 10,044 and 711 more patients were treated. In this way, over 2,000 more septic teeth were removed and it was hoped that a long term effect would be the reduction of the number of 'casuals' and an increase in the time available for preventive work.

During the year, a pilot survey of new entrants to schools was made to ascertain accurately the amount of dental decay in the town's five year old children. 252 children from 8 schools chosen at random were examined in detail. At this age, all 20 milk teeth are usually present and the permanent teeth are just beginning to appear. The survey showed that 90% of the children had experience of dental decay, each child on an average having five teeth affected. One surprising finding was that 1 in 8 children already had decayed permanent teeth.

An identical survey of 231 children leaving school at the end of 1952 gave similar findings for the permanent teeth. The total number of decayed, missing and filled permanent teeth was 1,485, each child on an average having 6 affected teeth. Contemplation of these results which are very similar to the few analogous findings published in this country, give an appreciation of the magnitude of the task facing any service whose aim is, "that children should leave school without the loss of permanent teeth, free from dental disease and trained in the care of the teeth."

It is acknowledged throughout the country that the present staff of the School Dental Service is unable to approach that ideal and, indeed, taken literally it is far beyond the resources of this or any other country with present methods of dental prevention and treatment. Many methods of making the best of things have been suggested.

As the fluorine content of drinking water has been related to dental caries, it is interesting to find that fluorine is present in only one of Bolton's five main supply sources and there only in a strength of 0.1 part per million; a suggested optimum is 1 part per million.

The artificial addition of fluorine to drinking water is reported to reduce caries by some 40% and has been adopted fairly widely in America. In this country, this method is still viewed with some timidity, though surveys in areas where fluorine occurs naturally seem to bear out the claim.

Assistance to the dental surgeons in the mechanical drudgery of filling innumerable teeth has been suggested in the form of dental nurses as are employed in New Zealand. If this scheme should be adopted it will be some years before its influence is felt and the suggestion has given rise to controversy and even acrimony in certain quarters.

Pending such revolutionary changes, treatment planning, the discriminating deployment of available resources, has assumed paramount importance. This so far has taken the form of limiting the number of children to whom conservative treatment is offered either to certain age groups of all schools, or to all age groups in a limited number of schools. The Ministry's guidance is to concentrate on conserving permanent teeth to the neglect of deciduous teeth. This would be an excellent scheme if the complete conservation of permanent teeth was within our capabilities, which it is not. The survey done in Bolton led one to consider seriously whether, in fact, such complete conservation is a desirable thing. The following factors make it doubtful.

The milk teeth being lost prematurely, crowding of the permanent teeth is almost inevitable. This increases the liability to decay and often creates gross irregularities which later demand prolonged and expensive orthodontic treatment.

The first permanent molar tooth, present from the age of 6 years, nearly always eventually becomes grossly carious. In the survey of children leaving school, no less than 96.5% had these teeth decayed. The permanent conservation of these teeth alone would be beyond the present resources of our staff, and such treatment involves time-consuming work on shrinking, sensitive, salivating children of 5, 6 and 7 years of age.

It is known that if these teeth are extracted about the age of 10 years, the second permanent molars move forward to occupy the spaces thus vacated and no appreciable loss of masticating efficiency results.

Decay of the other permanent teeth rarely occurs before the age of 11 years.

Accordingly, the policy adopted by Bolton's School Dental Service has been to extract carious first permanent molars at the age of $9\frac{1}{2}$ to 10 and the following benefits are confidently expected to be derived from this treatment.

- (1) Conservative work is required only for older children when better work can be done and when children are becoming more 'tooth conscious.'
- (2) Greater regularity of the teeth giving less need for orthodontic treatment (which often includes the extraction of sound teeth).
- (3) Less decay in the remaining teeth due to more efficient self-cleansing.

- (4) Very much less gross displacement of the premolar and canine teeth.
- (5) No impaction of the wisdom teeth.
- (6) Less tendency to pyorrhoea which is often due to abnormal biting stresses.

It is felt that a dentition of 28 reasonably sound and regular teeth is a better legacy to a school-leaver than 32 heavily-filled and crowded teeth, and that this treatment provides much healthier mouths than any other practicable method.

Result of a Pilot Dental Survey of a number of School Entrants

	Wolfenden Street	Tonge Moor	Harwood, Lostock, Smithills Dean	Astley Bridge Methodist	Sharples	Brownlow Fold	Total
No. of children inspected ..	65	90	25	10	20	42	252
No. with caries experience ..	64	81	22	6	18	36	227
No. caries-free ..	1	9	3	4	2	6	25
Total decayed, missing and filled teeth ..	393	468	144	29	104	206	1,344
No. with decayed permanent teeth	9	13	2	—	1	5	30
No. of decayed permanent teeth	14	17	4	—	2	11	48
No. with fillings	2	7	2	—	4	2	29
No. of fillings ..	3	16	3	—	5	2	29

Number of affected teeth per 100 children	= 53.3
Percentage of children with caries experience	= 90.0
Percentage caries-free	= 10.0

Dental Inspection and Treatment

(1) Number of pupils inspected by the Authority's Dental Officers:—									
(a) Periodic age groups	...	...	...	...	...	...	...	...	16,268
(b) Specials	...	...	...	...	...	...	...	...	3,213
Total	...	...	...	...	...	...	...	...	<u>19,481</u>
(2) Number found to require treatment									
									<u>11,352</u>
(3) Number referred for treatment									
									<u>9,963</u>
(4) Number actually treated									
									<u>7,505</u>
(5) Attendances made by pupils for treatment									
									<u>12,991</u>
(6) Half-days devoted to:									
Inspection	...	...	...	...	...	...	...	...	136
Treatment	...	...	...	...	...	...	...	...	2,085
Total	...	...	...	...	...	...	...	...	<u>2,221</u>
(7) Fillings:									
Permanent Teeth	...	...	...	...	...	...	...	...	3,803
Temporary Teeth	...	...	...	...	...	...	...	...	2,536
Total	...	...	...	...	...	...	...	...	<u>6,339</u>
(8) Number of teeth filled:									
Permanent Teeth...	...	...	...	...	...	...	...	...	3,058
Temporary Teeth	...	...	...	...	...	...	...	...	2,375
Total	...	...	...	...	...	...	...	...	<u>5,433</u>
(9) Extractions:									
Permanent Teeth	...	...	...	...	...	...	...	...	1,815
Temporary Teeth	...	...	...	...	...	...	...	...	10,597
Total	...	...	...	...	...	...	...	...	<u>12,412</u>
(10) Administration of general anaesthetics for extraction									
									<u>2,870</u>
(11) Other operations:									
Permanent Teeth	...	...	...	...	...	...	...	...	1,087
Temporary Teeth	...	...	...	...	...	...	...	...	892
Total	...	...	...	...	...	...	...	...	<u>1,979</u>

MINOR AILMENTS

A total of 5,414 school children attended school clinics and treatment centres making 22,765 attendances. 5,984 minor ailments were treated. The following table shows the number of children attending each of the clinics and also the number seen by the medical officers for the first time and on subsequent visits.

Clinic or Centre	No. of individual children attending during year	No. seen by medical officer on first visit	No. seen by medical officer on subsequent visits	Total No. of attendances	Minor Ailments seen by nurse only
Robert Galloway ..	2,220	1,298	768	9,794	2,087
Charles Street ..	1,913	964	389	9,513	2,744
The Withins* ..	52	18	19	145	20
Astley Bridge ..	412	250	202	1,461	316
Treatment Centres	817	—	—	1,852	817
	5,414	2,530	1,378	22,765	5,984

*Opened on the 17th November, 1952.

The number of visits to the treatment centres in schools is shown as follows:—

Whitecroft Road	482
Top o'th' Brow	226
Gaskell Street	750
Brownlow Fold	394

THE PROMOTION OF PHYSICAL FITNESS

The Provision of Physical Education:

Greater stress is being laid than formerly on informal work and on the individuality of the child. Small and large apparatus is being used to an increasing extent.

Athletics, swimming, dancing and games have been extensively arranged and a Teachers' Class in Physical Education has been very well supported.

Holiday Camps:

Three hundred and eighty-one children were examined to ascertain their fitness for attendance at Holiday Camps.

THE RESOLUTION OF EMOTIONAL AND EDUCATIONAL DIFFICULTIES

Report on the work of the Child Guidance Centre

The majority of the problems dealt with during the past year were of an educational nature and, in the absence of a full Child Guidance team, this trend has been encouraged. Nevertheless, the total number of children referred to the Centre, as well as the number of those presenting emotional and behaviour problems, has continued to rise.

Some of the casual factors in the environments of the children have been analysed, and the deleterious effects of broken homes once again come to the fore. Over 45% of the behaviour problems occur in these families and the proportion of children with such backgrounds in remedial classes is more than one in four. The importance of ecological elements is emphasised by the fact that almost 5% of the total number of children seen live in one small street. Parents who are themselves in need of psychiatric help continue to be conspicuously present, but unfortunately, few of these are prepared to obtain specialist treatment.

In some cases advice to the parents on handling a child and one or two interviews with the child himself are of sufficient help. This comparatively simple solution is often the answer when too much is being demanded of a dull child so that he never has an opportunity of tasting the delights of success. Where regular weekly visits to the Centre are arranged, the outcome is shown to be successful in some 70% of the cases.

The number of children who have been classified as E.S.N. is larger than in previous years. The number of children who have been recommended for residential schooling is creating problems.

The remedial groups in secondary schools have continued to produce extremely good results with an average increase in reading age of almost 2 years. In junior schools the results have been more varied, partly because of the tendency to include too high a proportion of backward rather than retarded pupils. The evening class in reading for school leavers now has 10 youths on its roll and where the pupils attend regularly, astonishingly good results have occurred. At some future date, the need for this service should disappear, although it would seem likely that next winter a further class may become necessary.

Total Number of Children seen = 205

Age Groups:

No. of children seen	Years of Age												
	4	5	6	7	8	9	10	11	12	13	14	15	Over 15
	2	10	27	31	15	24	23	25	16	15	13	3	1

Sources of Referral:

School Medical Officer	...	...	...	...	...	...	...	...	...	...	...	65
Schools	...	...	...	...	...	...	...	...	...	...	...	99
Parents...	...	...	...	...	...	...	...	...	...	...	...	12
Children's Department	...	...	...	...	...	...	...	...	...	...	...	6
Hospitals and General Practitioners	...	...	...	...	...	...	...	...	...	...	...	14
Chief Education Officer	...	...	...	...	...	...	...	...	...	...	...	9

Presenting Problems:

Educational and Intelligence	102
Behaviour and Emotional	49
Mixed	36
Special Cases (Epilepsy, deafness, spastics, etc.) ...	18

Disposal:

General Advice or referrals elsewhere	89
Individual treatment at Centre... ..	40
To Educational Sub-normal School	22
E.S.N. under 7 years of age	15
Mentally deficient	8
Remedial classes	12
Recommended for residential schooling	4
Waiting list or pending	15

HANDICAPPED PUPILS

Handicapped Pupils are pupils who, because of defects of the mind or body, need special educational treatment and in the Handicapped Pupils and School Health Service Regulations, 1945, the categories are defined.

During the year, the following number of children have been ascertained as in need of special educational treatment:—

(a) Blind	3
(b) Partially Sighted	—
(c) Deaf	2
(d) Partially Deaf	3
(e) Delicate... ..	97
(f) Diabetic	—
(g) Educationally Subnormal	26
(h) Epileptic	3
(i) Maladjusted	2
(j) Physically Handicapped	2
(k) Pupils suffering from Speech Defects	84
Total	<u>222</u>

At the end of the year, there were 306 handicapped pupils receiving special educational treatment and the following table gives details.

Category of Handicap	Special School	No. of Pupils	
		Boarders	Day
BLIND	Junior School for the Blind, Liverpool ...	6	—
	Royal Normal College for the Blind, Rowston Castle... ..	1	—
	Henshaw's School for the Blind, Manchester	1	—
PARTIALLY SIGHTED	Barclay School, Sunninghill, Berks.	1	—
	Exhall Grange School, Coventry	1	—
DEAF	Thomasson Memorial Special School, Bolton	4	8
	Royal School, Manchester	2	—
	Mary Hare Grammar School, Newbury ...	1	—
	Royal Cross School, Preston	1	—
	Lawns House School, Leeds	1	—
PARTIALLY DEAF	Thomasson Memorial Special School, Bolton	3	18
DELICATE	Lostock Open Air Special School, Bolton ...	140	—
PHYSICALLY HANDICAPPED	National Children's Home, Chipping Norton	1	—
	Margaret Barclay School, Mobberley ...	1	—
	Rudolph Steiner School, Aberdeen (Independent School)	1	—
	Exhall Grange School, Coventry	1	—
EDUCATIONALLY SUBNORMAL	Woodside Special School, Bolton	—	103
	St. Francis School, Birmingham	2	—
	Pontville R.C. School, Ormskirk	1	—
EPILEPTIC	Maghull Homes, Liverpool	3	—
	Colthurst House School, Alderley Edge ...	3	—
	Soss Moss School, Chelford	1	—
	Chalfont St. Peter School, Bucks.	1	—

The Authority has three schools for handicapped pupils:—

Woodside Special School—a day school for the educationally sub-normal child:

The following are the number of children on the roll, admitted and discharged during 1952.

	Boys	Girls
No. of children on the roll, Dec., 1952... ..	52	50
No. of children admitted during 1952	11	12
No. of children discharged during 1952	4	7

A medical officer visited the school once a week and routine school medical inspections were carried on in the same way as for a primary or secondary school.

Thomasson Memorial Special School—a day and residential school for Deaf and Partially Deaf Children:

This school draws its pupils from all over the country. With a few exceptions those children who live in Bolton or the surrounding area attended as day scholars; the remainder were resident.

A medical officer visited the school weekly and made 133 examinations at the request of the headmistress and 164 routine inspections. The Consultant Aural Surgeon paid 6 visits and examined 105 children.

The following children attended during 1952.

Bolton Area:		Boys	Girls
No. of children on the roll, Dec., 1952	...	17	16
No. of children admitted during 1952	...	1	5
No. of children discharged during 1952	...	6	5

Outside Areas:

No. of children on the roll, Dec., 1952...	...	46	22
No. of children admitted during 1952	...	1	1
No. of children discharged during 1952	...	4	1

In addition, arrangements are made at this school for Pure Tone Audiometry to be carried out on any child referred by the Assistant School Medical Officers.

Lostock Open Air Special School—a school for Delicate Children:

This is a residential school situated in pleasant surroundings on the outskirts of the Borough, which admits pupils from Bolton only. An Assistant School Medical Officer visited the school weekly, and by examining a number of children on each occasion, kept each child under review.

Facilities are available for bathing and swimming in a small swimming pool which is open all the year round.

As far as possible, no limitations are placed upon the children's activities and the majority are free to perform any physical activity. No child is admitted for a period of less than two school terms and the improvement in the medical condition and general nutritional status is surprising.

The following table shows the number of children in attendance, admitted and discharged during 1952.

	Boys	Girls
No. of children on the roll, Dec., 1951, and re admitted Jan., 1952...	56	45
No. of children admitted during 1952	42	38
No. of children discharged during 1952	36	33

An analysis of the medical conditions for which children were admitted to the school is given on next page.

Medical Condition										No. of children
Anaemia	...	...	...	...	...	...	...	...	...	6
Asthma	...	...	...	...	...	...	...	...	...	14
Bronchitis	...	...	...	...	...	...	...	...	...	15
Bronchiectasis	...	...	...	...	...	...	...	...	...	1
Cardiac Disease	...	...	...	...	...	...	...	...	...	3
Children recovering from primary tuberculosis complex	...	...	...	...	...	...	...	...	...	8
Rheumatism	...	...	...	...	...	...	...	...	...	1
Poor nutritional status	...	...	...	...	...	...	...	...	...	20
Still's Disease	...	...	...	...	...	...	...	...	...	1
General Debility	...	...	...	...	...	...	...	...	...	94
Pseudo coxalgia	...	...	...	...	...	...	...	...	...	1
Amputation of both legs	...	...	...	...	...	...	...	...	...	1
Various other conditions	...	...	...	...	...	...	...	...	...	16

Children unable to attend school through Physical Disabilities:

During the year, 27 children have received the service of home teaching because they were unable to attend school due to physical disability. A total of 1,380 hours instruction has been given. The children were examined at regular intervals and every attempt was made to get them to school wherever possible and, where necessary, arrangements have been made for transport of the children to and from school.

Since April, 1952, a teacher has attended the Bolton District General Hospital in the afternoons to give instruction to children who were in hospital for long periods.

Lip-Reading Classes:

Lip-Reading Classes were held once a week at Sunning Hill County Primary School and Folds Road School. A qualified teacher of the deaf was in charge of each Centre and 11 partially deaf children attended these classes.

Report of the Speech Therapist

The percentage of boys treated for stammering is about seven times as high as that of girls, and that for dyslalia is about twice as high for boys as for girls. Cleft palate (congenital) cases are all boys.

Almost all the girls being treated for stammering were aged 12 or over, but boys of all ages from 9 were treated in significant numbers.

The results of treatment have, in general, been quite encouraging.

Work of the Centre:

No. of patients attending (once weekly basis)	...	...	...	...	98
New patients admitted for treatment	...	...	...	...	44
Patients discharged as remedied	...	...	...	...	32
No. who have left to commence work	...	...	...	...	8

Type of Defect Treated:

Stammering	...	...	...	...	...	47
Dyslalia (Simple, Multiple, and General)	...	...	...	...	...	37
Aphasia	...	...	...	...	...	3
Cleft Palate Speech due to congenital cleft of palate	...	...	...	...	...	7
Cleft Palate Speech (hyperrhinophonia) due to other causes	...	...	...	...	...	2
Cerebral Palsy	...	...	...	...	...	2

EMPLOYMENT OF CHILDREN AND YOUNG PERSONS

A total of 379 children were examined during 1952 for employment outside school hours. Fifty-six of these children were applying for Juvenile Performers' Licences under the Employment of Children in Entertainment Rules. An analysis of the type of employment all these children were entering is as follows.

Employment	No. of children
Grocers' Assistants	7
Butchers' Assistants	3
Newspaper Delivery	313
Entertainment	56

The hours the children worked were as follows.

Employment	Hours Worked
Grocers' Assistants	Evenings: 5 to 6 p.m. Saturdays: 8 a.m. to 12 noon
Butchers' Assistants	Evenings: 5 to 6 p.m. Saturdays: 8 a.m. to 12 noon
Newspaper Delivery	Mornings: 7 a.m. to 8 a.m. Evenings: 5 p.m. to 6 p.m. Saturdays: 8 a.m. to 10 a.m.
Entertainment	The 56 children employed in entertainment worked varied hours depending on the length of the productions.

All these children were found to be fit for employment.

CHILDREN INCAPABLE OF RECEIVING EDUCATION AT SCHOOL

Four boys and nine girls were found to be incapable of receiving education at school and were notified to the Local Health Authority under Section 57 of the Education Act, 1944. Six children of school-leaving age were examined and found to require supervision under Section 57 (5) of the Education Act. A total of 52 children were examined by medical officers of the Authority on account of backwardness.

SPECIAL INVESTIGATIONS

Bronchiectasis:

An attempt was made to assess the number of children suffering from bronchiectasis who might benefit from special treatment whilst at school and head teachers were invited to submit lists of children whose absence was repeated and long, due to chest complaints.

Approximately 200 names were submitted, and after investigation with existing records, 120 children were examined by the Assistant School Medical Officers and 33 referred to the Chest Physician for further investigation. The total number of children with bronchiectasis was only 4 but it is interesting to note that the investigation brought to light 17 children who would benefit from open air treatment on account of diseases of the chest. Investigation of some of the children was still proceeding at the end of the year.

The number of children suffering from bronchiectasis may be underestimated, bearing in mind the climate of the area. The investigation showed that as a method of bringing cases to light, reports from head teachers were not very effective.

Tuberculosis:

In the last report, it was stated that the School Health Service was co-operating with the Medical Research Council in carrying out extensive trials of anti-tuberculosis vaccines. This research is intended to investigate the value of anti-tuberculosis vaccines amongst tuberculin negative school leavers. The whole scheme covers many areas in the country and it is estimated that a total of some 30,000 school children are taking part.

In the term before a child leaves school, skin testing and X-Ray are carried out and children who are tuberculin negative on skin testing are divided into groups; some are given a tuberculosis vaccine and the remainder act as a control. In the final school term all those children who were tuberculin negative are re-examined by X-Ray and skin test. A follow-up takes place annually for the next three years after the vaccination when the children are again examined by X-Ray. The school nurses visit children at home each year to obtain details of their employment and illnesses.

The children taking part were those leaving school at the end of the Christmas term 1951 and the Easter and Summer terms of 1952. The consent of the parent was gained before any examination was made. A total of 1,254 Bolton children were invited to take part in the original examination and a total of 844 expressed the willingness so to do. Examinations of the children in various groups have been carried out, first in November 1951 and then in February 1952 and finally in November 1952.

As the research is not yet complete, it is impossible to give any results.

THE CARE OF PRE-SCHOOL CHILDREN

Nursery Schools:

There are two nursery schools in the Borough, and the following table show the number of children admitted and discharged and on the roll during 1952. These children have been medically examined during the year and a State-Registered Nurse attends the schools regularly.

Kay Street Nursery School:

No. of children on the roll, December, 1952	...	...	...	...	83
No. of children admitted during 1952	...	...	...	...	57
No. of children transferred to primary schools	...	...	...	...	35
No. of children removed by parents	...	...	...	...	15

Pikes Lane Nursery School:

No. of children on the roll, December, 1952	...	...	...	...	94
No. of children admitted during 1952	...	...	...	...	49
No. of children transferred to primary schools	...	...	...	...	35
No. of children removed by parents	...	...	...	...	15

SPECIAL SURVEY OF LOCAL HEALTH SERVICES
PROVIDED UNDER
THE NATIONAL HEALTH SERVICE ACTS

The Minister of Health requested that a survey of Local Health Services provided under the National Health Service Acts, covering the period from the 5th July, 1948, when the Act came into force, up to the end of December, 1952, should be included in the Annual Report for 1952.

COUNTY BOROUGH OF BOLTON — HEALTH DEPARTMENT

Special Survey of Local Health Services provided under the National Health Service Acts

GENERAL

ADMINISTRATION

In Bolton the powers and duties of the Council under the National Health Service Acts are exercised by the Health Committee which has appointed three Sub-Committees to be responsible for the appropriate Local Health Services.

Maternity and Child Welfare Sub-Committee

The Maternity and Child Welfare Sub-Committee is responsible for those parts of the Local Health Services which are related to the care of mothers and young children (including day nurseries), health visiting, vaccination and immunisation, and also matters related to district midwives and the district nursing service.

After-Care and Mental Health Sub-Committee

The After-Care and Mental Health Sub-Committee is responsible for the care and after-care of tuberculous persons, for the mental health services of the Authority, for the domestic help service and for any other after-care services which may be instituted.

Ambulance Committee

The Ambulance Sub-Committee is responsible for all matters relating to the Ambulance Service.

In addition to the medical staff, which comprises the Medical Officer of Health, Deputy Medical Officer of Health, and four Assistant Medical Officers, all of whom are also Assistant School Medical Officers, the following sectional heads are employed:—

Superintendent Health Visitor, who for the greater
part of 1952 supervised the Home Nursing
Service and the Domiciliary Midwifery Service.
Day Nursery Supervisor and Course Tutor
Domestic Help Organiser
Two Duly Authorised Officers
Ambulance Superintendent
Chief Clerk.

All these officers and the services with which they are associated are based on, or in close proximity to the Health Department building which is part of the Civic Centre, as a result of which the Medical Officer of Health is in daily contact with his deputy and senior "field" officers, who in turn work in close personal relationship with one another. In the near future, it is planned to close the District Nurses' Home and transfer the headquarters of the District Nursing Service to the Civic Centre, following which it is believed that the concentration of services will be of considerable convenience to the general public.

There are no joint arrangements with any other Local Health Authorities but the Ambulance Service operates in the Turton Urban District area on an agency basis for the Lancashire County Council.

CO-ORDINATION AND CO-OPERATION WITH OTHER PARTS OF THE NATIONAL HEALTH SERVICE

The local medical, pharmaceutical and dental societies each nominate a representative for co-option on the Health Committee. Seven Members of the Health Committee and the Medical Officer of Health are members of the Local Executive Council. The Medical Officer of Health is not a member of the Hospital Management Committee but is a member of a liaison committee between local Medical Officers of Health and the Regional Hospital Board

The Senior Chest Physician, a proportion of whose salary is paid by the Local Health Authority, occupies a clinic inside the Health Department building. He is assisted, particularly with regard to tuberculosis after-care, by three Health Visitors who are seconded for duties in the clinic and in the patients' homes. He has also at his disposal the stock of home nursing equipment which is kept in the same building.

There is equally close co-operation in ante-natal work. Ante-natal clinics are held in the Civic Centre and are staffed by the Local Health Authority's doctors and midwives. Complex cases may, however, be referred to a Specialist Clinic conducted in the same building by a Consultant Obstetrician who is on the staff of the Regional Hospital Board.

In the field of geriatrics, the help of the health visitor is regularly sought in assessing social need for admission to hospital, while in most cases instances of elderly people needing domiciliary services such as district nursing or domestic help are brought to the attention of the Medical Officer of Health by general practitioners and hospital almoners.

Similarly there is good liaison between local doctors and our health visitors in securing proper after-care of convalescent patients. Co-operation between district nurses and midwives on the one hand, and general practitioners on the other hand, is also particularly good.

It is intended to take advantage of the arrangements reached between the Minister of Health and the Postmaster General for the provision of information on Local Health Services in post-offices throughout the Borough.

JOINT USE OF STAFF

Until April, 1952, general practitioners staffed the Infant Welfare Centres. Since that time, however, an adequate full-time staff has been recruited and general practitioners now attend the clinics only during absence of the full-time staff. A Specialist Ante-Natal Clinic is conducted fortnightly by a Consultant of the Regional Hospital Board, while the Chest Clinic is medically staffed full-time by officers of the Board.

It is interesting to note that the Regional Hospital Board's Diagnostic Clinic is also held within the confines of the Health Department building.

VOLUNTARY ORGANISATIONS

Much valuable work is done by the Bolton Diocesan Moral Welfare Council, to whom the Local Health Authority pays an annual grant. In addition, the Authority accept financial responsibility for the maintenance of unmarried mothers and their children under arrangements made by the Moral Welfare Council.

The Women's Voluntary Service have on many occasions assisted with the re-clothing of many of our problem families.

Voluntary Workers assist in the distribution of baby foods at all the Infant Welfare Centres.

PARTICULAR SERVICES

CARE OF EXPECTANT AND NURSING MOTHERS AND CHILDREN UNDER SCHOOL AGE

Expectant and Nursing Mothers:

Ante-Natal Clinics were discontinued in March 1950 due to the small number of attendances, and patients were seen by midwives in their own homes. The Clinics were recommenced in September 1952, and since that date, two Ante-Natal Clinics have been held each week in the Health Department. These are staffed by an Assistant Medical Officer, a Health Visitor and a Midwife. A patient attending for the first time can book her midwife at the Clinic. Twenty-five sessions were held during 1952. There were 723 attendances by 249 patients. In addition, one Specialist Clinic was held fortnightly for cases referred by the doctor in charge of the Ante-Natal Clinic. One hundred and twenty-eight (128) mothers attended at this Clinic.

The mothers attend approximately once every four weeks till the 28th week, fortnightly till the 36th week, then weekly till delivery. An appointments system is in operation and absentees are notified to the midwife who makes a home visit.

Post-Natal examinations are arranged by appointment. The patients attend the Ante-Natal Clinic for this examination and during the year, 23 attended.

At the Ante-Natal Clinic, specimens of blood are taken for Wasserman Reaction, Rhesus Factor, Haemoglobin examinations and blood grouping.

Until September, 1952, maternity outfits were supplied by the midwives to their patients, 315 being supplied during this portion of the year. After September, with the commencement of the Ante-Natal Clinics, arrangements were made for these outfits to be supplied to the mothers at the clinic and since that date, 77 have been so supplied.

No nursing assistance is given at Clinics held by general practitioners on their own premises and the shortage of nursing staff would, at present, preclude such help. Similarly it is not possible to make arrangements for Mothercraft Training at the Ante-Natal Clinics. It is hoped, however, that this will be possible when staff can be more freely obtained.

Unmarried mothers requiring assistance are referred to the Local Moral Welfare Worker. Part of the cost of the maintenance of these patients both before and after the confinement is met by the Local Health Authority if the necessity arises. Twelve unmarried mothers were dealt with in this way during 1952.

Child Welfare:

Prior to the 1st April, 1950, Child Welfare Clinics were under the control of a Voluntary Organisation. The Local Health Authority took over the full responsibility on this date. The number of weekly sessions devoted to this work has increased from twelve in 1948 to fifteen in 1952. In the latter year, two new Clinics were opened, one on Saturday morning and this has proved a successful experiment.

The following table shows the number of sessions held and the total number of attendances at the various Child Welfare Centres during 1952.

Child Welfare Centres

	Number of Sessions	Total Number of Attendances	Average Number of Attendances per Session
Civic Centre (1)	47	3317	70.6
Daubhill	50	3369	67.4
Halliwell	47	3178	67.6
Rosehill	50	2776	55.5
Civic Centre (2)	49	2995	61.1
Deane	47	2357	50.2
Chalfont Street	47	1917	40.8
Tonge Fold	47	3238	68.9
Delph Hill	46	2614	56.8
Tonge Moor	49	2730	55.7
Chorley Old Road	51	3479	68.2
High Street	50	2459	49.2
Astley Bridge	50	2712	54.2
*Lever Edge	32	983	30.7
†Civic Centre (3)	12	255	21.2

*Opened 3rd May.

†Opened 2nd Oct.

At the beginning of 1952, the Child Welfare Clinics were staffed by general practitioners on a sessional basis but during the year, full-time Assistant Medical Officers were recruited and at the end of 1952, those Clinics were completely staffed by such officers.

Care of Premature Infants:

Most premature babies are immediately transferred to hospital but suitable equipment consisting of a cot and oxygen outfit, etc., is held at the Health Department and is available for transport by ambulance wherever required in the district.

The equipment available for the domiciliary care of premature babies consists of:—

1 "Sorrento" Cot	4 Blankets
1 Mattress	3 Hot Water Bottles
1 Pillow	3 Hot Water Bottle Covers
4 Sheets	Oxygen Outfit

children. They were inspected regularly and were satisfactory. Two (2) private Nurseries, both organised by cotton mills closed during the year due to a trade recession in the cotton industry.

DOMICILIARY MIDWIFERY

At the end of 1952, 7 Municipal Midwives and 4 Private Midwives were in practice in the area. During the year, they attended a total of 533 cases, an average of 48 cases per midwife. Four hundred and seventy-six (476) cases were conducted by midwives, 23 by doctors with the midwife acting as a maternity nurse, and 34 cases either miscarried or were sent into hospital before delivery. Of the women confined at home, 483 had live births, 11 had stillbirths weighing over 5½ lbs., and 5 had stillbirths weighing 5½ lbs. or under. The total number of premature live births at home was 27, six of which were subsequently transferred to hospital. One died at home during the first 24 hours and 20 survived one month.

The Medical Officer of Health was the Medical Supervisor of Midwives.

The Non-Medical Supervisor of Midwives ceased duties in March, 1952, and since that date, the Superintendent Health Visitor has been acting as a co-ordinator pending the appointment of a Non-Medical Supervisor. The work includes the supervision of midwives not employed by the Local Health Authority.

Analgesics were administered by all the midwives employed by the Local Health Authority. During 1952, Gas and Air Analgesia was administered to 382 cases and Pethidine was given in 126 cases.

The Municipal Midwives attend the Ante-Natal Clinics in turn, each midwife thus attending a Clinic on the same day at four weekly intervals. The Clinics are so arranged that her cases attend on the days she is present.

Co-operation with the general practitioners is good. In 1952, Medical Aid was sought by the Midwives in 126 cases for the following reasons:—

(1) Conditions relating to the Mother

(a) Ante-Natal conditions, etc. (Ante-Partum haemorrhage; Abortions) ..	20
(b) Prolonged 1st Stage	8
(c) Delay in 2nd Stage	14
(d) Post-Partum conditions:	
Post-Partum haemorrhage and/or retained placenta	11
Perineal tears	30
Puerperal rise of temperature	4
Other puerperal conditions	4
(e) Miscellaneous conditions	10

(2) Conditions relating to the child

(a) Prematurity	11
(b) Malformation	4
(c) Discharging eyes	8
(d) Other conditions	7

In some cases, medical aid was sought for more than one condition.

At the request of the hospital, the Health Visitors reported during 1952 on the home conditions of 36 expectant mothers. In 14 cases, the home conditions were considered suitable for home confinement, while the remainder were recommended for delivery in hospital.

A Refresher Course is attended by each midwife once every five years. The Courses attended are those organised by the Royal College of Midwives. In 1952, two Municipal Midwives attended such a Course.

Training of Pupil Midwives for Part II District Training is undertaken. There are usually two to four Pupil Midwives resident at the District Nurses' Home, each seconded to one midwife. Four (4) midwives are approved as teachers, and in 1952, they trained 11 Pupil Midwives.

HEALTH VISITING

At the end of 1952, there were 17 Health Visitors/School Nurses, 4 Student Health Visitors, 2 Tuberculosis Visitors with Health Visitor qualifications, 1 Tuberculosis Visitor with the Tuberculosis Certificate and 4 School Nurses. The service was supervised by a Superintendent Health Visitor and a Deputy Superintendent Health Visitor.

Each newborn child was visited after the fourteenth day and as far as possible, at monthly intervals during the first year and quarterly thereafter until the child reached school age. In addition, the Health Visitors visited expectant mothers and the aged and prepared reports for the hospital authorities on the home conditions of aged sick persons. They also looked after certain problem families in co-operation with other statutory bodies and voluntary organisations.

The Health Visitors in turn attend twice weekly at the hospital, once at the paediatric out-patients and once at the paediatric ward round.

Visits are also paid in connection with applications for convalescence after illness or for family rehabilitation.

The following table shows the number of home visits (divided into various categories) paid by the Health Visitors during 1952.

First visits to expectant mothers	173
Subsequent visits to expectant mothers	53
First visits to newly-born babies	2,315
Subsequent visits to infants under 1 year	9,829
Enquiries into deaths occurring in children (under 1 year of age)	47
Visits to children, 1-5 years	17,984
Visits to cases of infectious disease	84
Visits to chronic sick	367
Visits to arrange After-Care	47
Miscellaneous visits	1,381
Total Visits	32,280

Bursaries are provided for suitable candidates who wish to train for the Health Visitor's Certificate. In 1951, 3 students qualified and in 1952, 7 qualified. Each Health Visitor attends, every five years, a Refresher Course organised by the Woman Public Health Officers' Association. Three (3) Health Visitors attended the 1952 Course. Students contract to serve the Local Authority for a period of two years after qualification. There is a Health Visitors' Course run by the Queen's Institute at the Bolton Technical College.

HOME NURSING

The Home Nursing Service functions from the District Nurses' Home. At the end of 1952, the staff consisted of—

- 1 Assistant Superintendent
- 5 Full-time Queen's Nurses
- 2 Full-time Queen's Male Nurses
- 2 Part-time Queen's Nurses
- 2 Full-time State Registered Nurses
- 1 Full-time Male State Registered Nurse
- 3 Part-time State Registered Nurses
- 1 Part-time Registered Fever Nurse
- 4 Full-time State Enrolled Assistant Nurses
- 1 Part-time State Enrolled Assistant Nurse
- 1 Full-time Male Orderly

Of these, only 3 were resident in the Home. The Superintendent Health Visitor was acting as Superintendent of the service pending the appointment of a full-time Superintendent.

The District Nurses report for duty at 8.30 a.m. and the service is available until 10.0 p.m. There is no night service after this hour.

Co-operation with the general practitioners is extremely good. A patient is only nursed at the request of the family doctor, and the doctor and the nurse work closely together. There is good liaison with the hospitals, particularly with regard to the care of post-operative cases and the preparation of patients for X-ray examinations.

None of the District Nurses has attended a Refresher Course so far, but this is under consideration when more staff are available. One of the male district nurses is undergoing training for the Queen's Nurse Certificate.

VACCINATION AND IMMUNISATION

(a) Vaccination:

There are no separate sessions held for the vaccination of infants but in 1952, arrangements were started to make infant vaccination available at all Infant Welfare Clinics. The Health Visitor advises the mother to have her child vaccinated and it is this personal approach which produces the best results. No arrangements are made for the sending of letters for this purpose. The following table shows the number of vaccinations carried out in the area both by general practitioners and members of the Local Authority staff in the years 1949 to 1952.

	1949	1950	1951	1952
Infant Vaccination	419	510	524	543
Other primary Vaccinations (Up to the age of 5) ..	18	53	71	95
" " " (5 to 14 years)	17	62	48	61
" " " (15 years or over)	40	76	194	170
Re-Vaccinations	96	210	440	313

(b) Immunisation:

Immunisation is available at all the Child Welfare Clinics. "Boosting" injections are given at school. The Health Visitor encourages attendance for this purpose.

During 1952, a combined diphtheria-pertussia vaccine, prepared according to the Pearl Kendrick formula, was introduced. Parents were then offered the choice of immunisation of their children against Whooping Cough and Diphtheria or against Diphtheria only. Of the 1,936 children who were completely immunised during the year, 1,199 were protected against both diseases.

The following table shows the number, by age groups, of children completely immunised and the number of reinforcing injections.

	1949	1950	1951	1952
Diphtheria Immunisation only:				
Primary Immunisation (Under 1 year)	799	835	698	651
" " (1 to 5 years)	887	825	852	857
" " (5 to 15 years)	304	355	122	428
Reinforcing Injections	1067	1072	438	1778

AMBULANCE SERVICE

During 1952, a Sub-Committee of the Health Committee was constituted to deal with matters connected with the Ambulance Service. This Sub-Committee met at monthly intervals and received a detailed report of the work carried out by the service.

The Ambulance Service during 1952 ran a total distance of 153,709 miles and carried 36,171 patients. The following tables show the number of miles travelled during 1950, 1951 and 1952, and the number of cases carried during the same period. These figures include the mileage run and the patients carried for the Turton District of the Lancashire County Council Area for which an agency arrangement is in force.

Comparative Statement of Total Mileage

	1950	1951	1952
Ambulances	95,988	98,296	94,052
Sitting-Case Cars	32,378	61,845	59,657
Totals	128,366	160,141	153,709

Comparative Statement showing numbers of Patients Carried

	1950	1951	1952
Ambulances	27,654	28,630	25,365
Sitting-Case Cars	4,342	8,596	10,806
Totals	31,996	37,226	36,171

The following table shows the numbers for 1952 of patients carried and miles run for the County Borough of Bolton and for the agency service operated on behalf of the Lancashire County Council.

	BOLTON		LANCASHIRE COUNTY COUNCIL	
	Patients	Miles	Patients	Miles
Ambulance	24,128	84,330	1,237	9,722
Sitting-Case Cars . .	10,072	51,735	734	7,922
TOTALS	34,200	136,065	1,971	17,644

It will be seen that, in general, there has been a slight fall in the demand on the service during 1952 and this is, in part, due to efforts made to secure economical use. These consisted of:—

- (i) An appeal by letter to general medical practitioners to exercise the utmost care in ordering ambulance transport.
- (ii) Close liaison with the local hospitals to co-ordinate on the one hand, the times of appointments, and on the other, the times of discharges of patients from hospital.
- (iii) Reporting by ambulance drivers of cases of apparent abuse and subsequent investigation with the hospital authorities and general practitioners.
- (iv) Limitation of "standing orders" for transport of patients regularly attending out-patient clinics at hospitals to one week at a time. This ensures at least weekly review of all such cases.

Equipment:

During the year, pure oxygen replaced oxygen and carbon dioxide mixtures in resuscitation outfits. At the end of the year, most of the ambulances were fitted with a resuscitation apparatus and an oxygen cylinder fitted with clamps and readily removed. The resuscitation apparatus consists of a reducing valve, a flow meter and a mask and the whole can be carried by an ambulance man for an appreciable distance.

PREVENTION, CARE AND AFTER-CARE

Tuberculosis:

The arrangements for the After-Care service relating to tuberculous patients are jointly made between the Senior Chest Physician of the Regional Hospital Board and the Medical Officer of Health. 3/11ths of the salary of the Senior Chest Physician is paid by the Local Health Authority, thus co-ordinating the diagnostic and treatment services and the after-care arrangements.

A weekly meeting of the medical officers employed in the Chest Clinic is held to discuss clinical, administrative and after-care problems. Close co-operation is maintained by the Health Department by personal discussions and formal reports such as notifications and hospital discharge reports. Fortunately, the Chest Clinic is situated in the same building as the Health Department and this close proximity aids personal discussion between officers of both staffs.

The Health Visitors employed as Tuberculosis Visitors are on the staff of the Local Health Authority, 4/11ths of their salary being recovered from the Hospital Management Committee for their clinical duties.

The size of the problem of Tuberculosis in Bolton can be assessed from the following table which shows the total attendances at the Chest Clinic and the number of new cases occurring each year from 1949 to 1952.

Year	Total Attendances	New Cases
1949	5,152	900
1950	5,365	901
1951	6,772	1,255
1952	6,298	1,454

B.C.G. Vaccinations:

All children who are contacts of known cases and who have negative Mantoux Skin Tests, are offered B.C.G. vaccination and where appropriate, are segregated for six to eight weeks in hospital or in a residential nursery. The following table shows the number of such vaccinations carried out.

B.C.G. VACCINATIONS			
1949	1950	1951	1952
<u>Nil</u>	<u>8</u>	<u>47</u>	<u>52</u>

Home Visiting:

In June 1952, after full consultation between the Chest Physicians and the Medical Officer of Health, a third Health Visitor was allocated to Tuberculosis Visiting. Three Health Visitors, therefore, staff the Chest Clinic and carry out Home Visits as necessary under the supervision of the Senior Chest Physician in charge of After-Care. The following table shows the number of visits paid from 1949 to 1952.

VISITS PAID			
1949	1950	1951	1952
<u>*466</u>	<u>1745</u>	<u>1989</u>	<u>1802</u>

*One Health Visitor only for part of the year.

Unfortunately, owing to sickness of staff during 1952, the expected increase in visits did not occur.

Organisation of After-Care:

Generally speaking, the gap between the curative and the after-care services is effectively bridged by the part-time use by both services of medical and health visiting staff and by the close personal contact which therefore exists between the various agencies working for the care of the patient.

The Sub-Committee of the Health Committee responsible for After-Care receives a monthly report presented by the Senior Chest Physician giving details of the work on after-care of tuberculous patients. As this Committee is also responsible for the maintenance of a stock of various articles for use in the home when required, these can be lent to patients suffering from Tuberculosis. For example, a motor-propelled vehicle is at present on loan to a patient suffering from Tuberculosis of the spine with Paraplegia.

Much of the After-Care work is carried out with the assistance of other bodies. Many needy patients are referred to the National Assistance Board for help. Those fit for light work are referred to the Ministry of Labour and National Service with the appropriate recommendation, and every few months the Disablement Rehabilitation Officer of this Ministry interviews patients in conjunction with the Chest Physician in an effort to place in suitable employment. Where necessary, patients are sent for training and one patient has been partly maintained for several years at Papworth Colony by the Local Health Authority. Close co-ordination is maintained with the Housing Department and the following table shows the number of patients with Tuberculosis referred for rehousing and the number actually rehoused during the years 1949 to 1952.

	1949	1950	1951	1952
Cases referred to Housing Director ..	<u>62</u>	<u>37</u>	<u>83</u>	<u>59</u>
Cases rehoused	<u>45</u>	<u>36</u>	<u>35</u>	<u>37</u>

Treatment at home is carried out by the District Nurses who give Streptomycin injections and other treatment as prescribed by the Chest Physician. In 1952, 61 patients were so treated.

Illness Generally:

Arrangements for the after-care of other illness can be divided into convalescence and loan of equipment.

During the year 1952, arrangements were made for the admission of 15 adults and 4 children to convalescent homes for periods of convalescence varying from two to ten weeks. In each case, the convalescence was advised by the family doctor.

A stock of various articles of nursing equipment for use in the home is kept at the Health Department and they are loaned free of charge at the request of general practitioners, district nurses and hospital almoners.

The following table shows the amount of equipment in use at the end of the year, the number of times each article of equipment was issued during the year, and the actual equipment in stock at the 31st December, 1952.

	Number of Issues during year	Number in use 31/12/52	Number in stock at 31/12/52
Bed Pans	133	66	3
Air Rings	106	63	2
Tan Sad Invalid Chairs ..	9	9	—
Bed Rests	73	50	2
Chair Night Commodes ..	—	5	—
Blankets	—	10	10
Sheets	—	8	8
Pillow Cases	—	6	6
Crutches (pairs)	2	1	1
Urine Bottles	61	26	2
Feeding Cups	—	3	—
Pillows (Flock)	—	6	6
Hot Water Bottles	—	11	11
Rubber Sheets	134	30	20
Children's Cots	—	3	—
Dunloppillo Mattresses ..	—	2	—
Motor-Propelled Chair ..	—	1	—
Bed Cradles	2	1	1
Lilo Air Bed	2	1	1

In particular, after-care of the paralysed patient has given some concern and discussions have taken place between the almoner of a special hospital for this type of patient, the Housing Department and the Health Department with a view to providing the necessary after-care. Liaison with the general practitioner is good and the hospital almoners are using the service to a greater extent than formerly.

DOMESTIC HELP

The following table shows the Domestic Helps employed since 1949.

DOMESTIC HELPS EMPLOYED ON 31st DECEMBER

1949		1950		1951		1952	
		WHETHER FULL-TIME OR PART-TIME					
Full 60	Part 70	Full 53	Part 95	Full 35	Part 106	Full 25	Part 111

The service in July, 1948, comprised 92 Domestic Helps and on December 31st, 1952, this figure has risen to 136.

On the 31st December, 1952, the service consisted of an Organiser, an Assistant Organiser, two full-time Visitors, a Clerk and 136 Domestic Helps. Of this figure, 111 were employed on a part-time basis, an equivalent of 90 full-time Domestic Helps. Training was started in 1949 consisting of the attendance of eighteen women at a time at a Course of twenty lectures arranged in conjunction with the Education Department. The syllabus includes cooking, both plain and invalid, laundry work, hygiene and simple First Aid. In addition during the winter months there are regular monthly meetings and lectures by the Medical Officer of Health and other officers of the Health Department, who assist in giving the Domestic Helps a broad view of the Department's functions and additional understanding into particular types of illness or infirmity met with during the course of the Helps' duties. The Domestic Helps are offered Mass Radiography annually and in addition, on commencement of duty, have to pass a satisfactory medical examination.

The following table shows the number of new cases attended by Domestic Helps each year.

	NEW CASES ATTENDED			
	1949	1950	1951	1952
Maternity	182	142	120	71
General Sickness, Infirmary and Senility ..	441	579	526	497

Of the 687 applications for help during the year 1952, 158 came from almoners or welfare workers, 171 from general practitioners and 358 from patients or their friends or relatives. Approximately 50 cases had service either continuously or with short breaks, for three years. A further 50 cases had service for similar periods for two years. Most cases are provided with Domestic Help service on two or three half days in each week, but where the patient is bedfast and alone and other assistance is not available, service is provided more often. It is the practice to provide help in confinement cases for 44 hours per week for two weeks.

Of the above applications, 8 were for patients suffering from Tuberculosis, 336 were for the Chronic Sick or Infirm and 343 were for acute sickness or accident cases.

The following table shows the number of cases in which recovery of part of full cost of the service was obtained.

	MATERNITY CASES SUPPLIED WITH DOMESTIC HELP				CASES OF SICKNESS OR INFIRMITY SUPPLIED WITH DOMESTIC HELP			
	1949	1950	1951	1952	1949	1950	1951	1952
No. provided free of charge	19	9	9	1	235	348	284	301
No. provided and part cost recovered	156	127	81	60	156	185	160	128
No. provided and full cost recovered	7	6	30	10	50	46	82	68

At the 31st December, 1952, there were 5 maternity and 364 other cases being supplied with Domestic Help.

HEALTH EDUCATION

The Local Authority makes grants to the Central Council for Health Education and to the Royal Society for the Prevention of Accidents. A topic is displayed in the main Infant Welfare Centre building and from time to time, leaflets are issued. The medical staff lecture to various women's organisations and a 16 mm. projector is available for illustrating their talks. In addition, the Sanitary Inspectors have given talks to persons engaged in the food trade concerning clean food.

MENTAL HEALTH

(i) Administration:

(a) COMMITTEE RESPONSIBLE FOR SERVICE:

The Committee responsible for the Mental Health Service is the After-Care and Mental Health Sub-Committee which consists of the Mayor, Chairman and Vice-Chairman and seven Members of the Health Committee and meets at monthly intervals.

(b) NUMBER AND QUALIFICATIONS OF STAFF:

The Medical Officer of Health and his Deputy are responsible for the service and the following table shows the total staff employed in 1952.

DESIGNATION	QUALIFICATIONS
Medical Officer of Health	M.D., Ph.D., D.P.H., F.R.F.P.S., D.P.A.
Deputy Medical Officer of Health ..	M.B., Ch.B., D.P.H.
Two Duly Authorised Officers ..	—

(c) CO-ORDINATION WITH REGIONAL HOSPITAL BOARDS AND HOSPITAL MANAGEMENT COMMITTEES:

There is no joint use of officers. Supervision is carried out of patients on licence from Mental Defective Institutions. In 1952, 63 visits were paid to the homes of defectives who were being considered for holiday or short licence, 16 in connection with progress reports for defectives on long licence and 77 for patients who were about to be seen by the Statutory Visitors for the purpose of recertification in accordance with the requirements of Section 11 of the Mental Deficiency Act, 1913. In addition, a total of 148 visits have been paid to the homes of patients admitted to or discharged from mental hospitals.

(d) DUTIES DELEGATED TO VOLUNTARY ASSOCIATIONS:

During 1952, no duties were delegated to such Associations in this area.

(e) TRAINING OF STAFF:

During 1952, arrangements were initiated for a weekly meeting between the Consultant Psychiatrist and the Duly Authorised Officers which serves the purpose both of discussing cases and of training the Duly Authorised Officers in modern conceptions of the practice relating to mental illness.

(ii) Account of work undertaken in the community:

(a) UNDER SECTION 28 OF THE NATIONAL HEALTH SERVICE ACT, 1946:

During the year 1952, 79 visits were made to the homes of patients discharged from mental hospitals and reports made as to their welfare.

(b) UNDER THE LUNACY AND MENTAL TREATMENT ACTS, 1890-1930:

In 1952, the Duly Authorised Officers dealt with 125 persons who needed treatment for mental disorders. Patients were admitted to mental hospitals under the following Sections of the Lunacy Act:—

Section 16	..	9 men	24 women
Section 20	..	30 men	19 women
Section 21 (1)	..	19 men	14 women

Seventy-seven (77) visits were made in connection with the completion of social histories of patients admitted into mental hospitals.

In November, 1950, the Regional Hospital Board set up a bed bureau to control admissions to the major mental hospitals. This has resulted in a much more even distribution of accommodation in hospitals and there is now virtually no delay in admitting acute cases. A relatively small number of cases of aged female patients continues to cause some difficulty.

Voluntary case procedure still continues to function and complete consultant liaison is established between the Mental Health Service and the Psychiatrist. In addition, arrangements are in operation under which the Psychiatrist makes domiciliary visits to patients who are unable or unwilling to attend the clinics. As a result, during 1952, 174 patients (73 men and 101 women) were admitted to mental hospitals as voluntary patients under Section 1 of the Mental Treatment Act, 1930.

In addition, 329 visits were made in connection with the preparation of case notes of persons alleged to be of unsound mind.

Two hundred and thirty-one (231) men and 327 women were receiving treatment in mental hospitals on the 31st December, 1952.

(c) UNDER THE MENTAL DEFICIENCY ACTS, 1913-1938:

(i) ASCERTAINMENT AND SUPERVISION:

	Under age 16		Aged 16 and over	
	M	F	M	F
1. PARTICULARS OF CASES REPORTED DURING 1952				
(a) Reported by Local Education Authority ..	3	7	—	—
(b) On leaving special schools	—	—	—	6
(c) At police or other courts	—	—	—	1
(d) Other sources	—	—	—	2
(e) Not found subject to be dealt with ..	—	—	—	2
Total	3	7	—	11

2. DISPOSAL OF ABOVE CASES

(a) Placed under supervision	3	6	—	5
(b) Removed to place of safety	—	1	—	—
(c) Removed to institution	—	—	—	1
(d) Action unnecessary	—	—	—	2
(e) Action not yet taken	—	—	—	3
Total	3	7	—	11

Two hundred and fifty-eight (258) visits were made during the year to the homes of mental defectives under Statutory or Voluntary Supervision and reports were made on the general care and home conditions.

The following visits were made at the request of the Medical Superintendent of Mental Deficiency Institutions:—

Visits to the homes of mental defectives who are being considered for holiday and short licence	63
Visits in connection with progress reports of mental defectives who are on long licence from institutions	16
Visits on home circumstances, etc., for patients who are about to be seen by the Statutory Visitors for the purpose of recertification in accordance with the requirements of Section 11 of the Mental Deficiency Acts	77

On the 31st December, 1952, the number of mental defectives found subject to be dealt with who were under some form of supervision in the community, including those on licence from institutions, was 139. The number of mental defectives under care in institutions and places of safety was 193, making a total of 332. The following table gives details of these defectives.

	Under Age 16		Aged 16 and over		Total
	M	F	M	F	
1. Under Statutory Supervision	13	16	47	45	121
2. Under Guardianship	—	—	1	1	2
3. In 'Place of Safety'	—	1	—	—	1
4. In Institutions	7	13	90	82	192
5. Action not yet taken	—	—	—	3	3
6. On licence from institutions ..	—	—	4	—	4
7. Under Voluntary Supervision	—	—	7	2	9
Total	20	30	149	133	332

(ii) GUARDIANSHIP:

There were only 2 cases under guardianship in Bolton during the year.

(iii) OCCUPATION CENTRE:

The Council continued to make strenuous efforts to find a suitable building for an Occupation Centre. The need is great, for an Occupation Centre helps both the children by virtue of the training which may be given, and the parents by relieving them for a few hours each day. It may also be that the provision of an Occupation Centre will do something to reduce the long waiting lists for places in Mental Deficiency institutions.

There are no arrangements for Home Teaching.

(iv) CLASSIFICATION OF MENTAL DEFECTIVES AWAITING VACANCIES IN INSTITUTIONS AT THE END OF THE YEAR:

	Under Age 16		Aged 16 and over	
	M	F	M	F
I. IN URGENT NEED				
(a) Cot and chair cases	1	2	—	—
(b) Ambulant low grade cases ..	3	1	—	—
(c) Medium grade cases	—	—	—	1
(d) High grade cases	—	—	—	1

2. NOT IN URGENT NEED

(a) Cot and chair cases	-	-	-	-
(b) Ambulant low grade cases ..	1	-	-	-
(c) Medium grade cases	1	-	1	2
(d) High grade cases	-	-	-	-
Total	6	3	1	4

(v) SHORT TERM CARE OF MENTAL DEFECTIVES

During the year, 1 mental defective was admitted to an institution to allow his mother a short period of convalescence.

COUNTY BOROUGH OF BOLTON



ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR ENDING

31st December, 1953

RONALD W. ELLIOTT, M.D., M.Sc., D.P.H.,
MEDICAL OFFICER OF HEALTH

HEALTH COMMITTEE, 1953-54

Chairman: Alderman E. Clarke, J.P.

Vice-Chairman: Councillor J. A. Childs

Alderman Mrs. E. A. Ashmore, J.P.

Alderman F. Bentley, J.P.

Councillor A. Bickerstaffe

Councillor Mrs. N. Bowyer

Councillor S. Entwistle, J.P.

Councillor W. Glynn. (Appointed: 4/11/53)

Councillor A. Hutchinson

Councillor Mrs. C. Leece, J.P.

Councillor F. Maughan. (Resigned: 5/8/53)

Councillor K. T. Meagher

Councillor Dr. J. R. Monks, G.M.

Councillor Mrs. G. Ross

Councillor W. Walsh

Councillor (Major) W. Whittaker

Co-opted Members:

Dr. B. Thornley

Mr. W. Crumblehulme

Mr. S. Wood

Sub-Committees

Accounts Sub-Committee

Maternity & Child Welfare, After Care and Mental
Health Sub-Committee

Baths, Wash-houses, Lavatories and Ambulance
Sub-Committee

Smoke Abatement Sub-Committee

Insanitary Areas and Premises Sub-Committee

Co-ordination of Health Service Sub-Committee

Provision of Dustbins Sub-Committee

Appointment of Staff (Minor Appointments)
Sub-Committee

Problem Families Joint Sub-Committee

Appointment of Assistant Medical Officers of
Health and Assistant School Medical Officers
Joint Sub-Committee

INTRODUCTION

"Our health, temperament, and disposition, are taken more from the air we breathe, than is generally imagined. . . ."

John Keats—1819

Considerable progress has been made in many important aspects of Public Health during 1953 and this report reflects a satisfactory trend towards the solution of some of our more outstanding problems.

It is unnecessary for me to emphasise the importance which the Council have placed on the need for the reduction in smoke pollution of the atmosphere, which is essential if we are to improve the living conditions in this densely populated and industrial area. The Council have been fully supported in their efforts by industrialists, the press, and the general public, and although progress in this direction is bound to be slow, the steps which have been taken should bear fruit within the next few years. I refer particularly to the help given by industrial firms by their use of the Prior Approval Panel, and to the preparatory work leading to the Minister's approval of our first Smokeless Zone, which covers 86 acres in the centre of the town, and which will be implemented during 1954.

Another great problem of environmental hygiene is that of slum clearance and housing repairs. Again, this is a slow process which is likely to be stimulated by the contemplated Housing Repairs and Rents Act. Without waiting for this, however, certain steps have been taken, and already one small slum clearance area has been fully approved and another is in the hands of the Minister awaiting approval. Surveys of other areas continue, but as with most other authorities, a shortage of sanitary inspectors makes progress extremely difficult. In this respect, the action of the Council in adjusting the salary rates of sanitary inspectors, has been most welcome and has shown signs of improving the situation. A full establishment of sanitary inspectors will be essential to carry out the work required in the Housing Repairs and Rents Bill should it become law.

Much has been written about the difficulties encountered by all three sections of the Health Services emanating from the division of responsibility created by the National Health Service Act, 1946. Whatever may be our personal views on this matter, there is only one thing to do under present circumstances and that is to try to make the Act work by full and friendly co-operation between all concerned. In Bolton, this friendly co-operation exists in very large measure and as a result, a number of schemes have been brought into effect during the year which will undoubtedly have beneficial results. An excellent example is the tremendous co-operation given by the Executive Council and the Hospital Management Committee and their officials in the production of the Health Exhibition and the Bolton Health Services Handbook.

The Medical Bureau will undoubtedly help to foster closer liaison between the family doctors and the Local Health Service.

I am grateful to the family doctors for their assistance in developing the scheme of co-operation, which has recently been implemented, between the health visitors and themselves, with the result that in future, it is expected that the health visitor will be accepted by the family doctor as a colleague working on the solution of

social and health educational problems in just the same way as the midwife, and home nurse, have been accepted for so many years as partners on the clinical side.

Co-operation with the hospitals is no less strong, and the assistance given to medical officers by the Paediatrician and his staff in their monthly meetings at the Bolton District General Hospital, and the visits of the health visitors to the paediatric wards, is greatly appreciated. Close liaison between the medical staff of the Chest Clinic and medical officers of the Health Department in the tracing of contacts of tuberculosis and in the re-housing and after-care of determined cases, has recently been effected, and together with the agreed plans for the extension of B.C.G. vaccination, should promote an added impetus to our joint efforts against one of the greatest social problems of our time.

Similar close co-operation exists in the complicated arrangements for midwifery engendered by the National Health Service Act.

The question of the care of old people still remains to be dealt with, and although every effort has been made in the past to assist in the working of the existing machinery, I am sure there is more that can be done, and with the impending re-organisation of geriatrics on the hospital side, an opportunity may present itself more readily in the near future.

Two new services have been started. Facilities for the dental care of expectant and nursing mothers and children under five were introduced in August after being in abeyance for some years as a result of shortage of dental staff. The physiotherapy service has also been extended so that instruction in relaxation exercises for expectant mothers is now available in the Authority's ante-natal clinics.

Attention is drawn to the abnormal increase in the number of vaccinations carried out during 1953. This was almost entirely due to the incidence of smallpox in the surrounding area. Although no cases occurred in Bolton, the general public did, in fact, become anxious on this score and applied in their hundreds for vaccination. Mass vaccination was not considered necessary and of those cases vaccinated, the majority of them were adults. There was some improvement in infant vaccination but not at all in proportion to the total number. It would appear that the general public become much more aware of the value of vaccination as smallpox draws near and I cannot emphasise too strongly that this awareness should be present in the minds of all mothers of young infants at all times. The best age for vaccination is within the first six months of life.

The Ambulance Service is an expensive one and must be used with due economy by all concerned. The Council have adopted a policy involving the use of radio control and of sitting-case ambulances, which has had the desirable effect of reducing the number of miles travelled per patient, although there has been no substantial change in the total number of patients carried.

For the second successive year, the infantile mortality rate has been maintained at a relatively low level. It is particularly pleasing to have maintained, and indeed, improved upon the low rate which was recorded in 1952, particularly after the unexpected sudden drop which occurred between 1951 and 1952. The Health Services as a whole must be congratulated on this very desirable result which, although still above the level for England and Wales, is reasonable for a highly industrial town of this kind. Further improvement is still possible.

The result of an investigation into burns and scalds is included in this report and draws attention to the desirability of taking steps to decrease the number of home accidents, deaths from which exceed those which occur on the roads. Here,

the health visitors have a great part to play as they have in all other fields of Health Education.

Family problems often become extremely acute due to the presence of a mentally defective child, or when because of social inadequacy of the parents, children become neglected. These two circumstances have been met by the opening of an Occupation Centre for mentally defective children—the first in Bolton—and by the arduous work carried out by the Children's Co-ordinating Committee which meets regularly to discuss problems of child neglect. The Committee consists of Members of the staffs of various Corporation Departments ably assisted by representatives of interested social organisations in the town.

There are so many persons and organisations engaged in the furtherance of Health and Social Welfare that it would be difficult to give them all, full acknowledgement in this brief introduction. To all of them I give my sincere thanks. I have been assisted most ably by my Deputy, Dr. Hugh Bryant, the Chief Sanitary Inspector, Mr. W. Williams, and the Chief Clerk, Mr. T. Ryder; and indeed, by all the staff of the Health Department who have been most enthusiastic during a year of interesting developments.

Ronald W. Welford.

Medical Officer of Health

Health Department,
Civic Centre,
Bolton, Lancs.

May, 1954.

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PRINCIPAL STAFF OF THE HEALTH DEPARTMENT

at 31st December, 1953

MEDICAL STAFF

Medical Officer of Health	..	Ronald W. Elliott, M.D., M.Sc., D.P.H.
Deputy Medical Officer of Health		Hugh Bryant, M.B., Ch.B., D.P.H.
Assistant Medical Officers of Health and School Medical Officers	.. . . .	E. W. G. Birch, M.B., B.S., M.R.C.S., L.R.C.P. G. C. Galea, M.D., D.R.C.O.G., B.Sc., Ph.Ch. Rosa M. Galloway, M.B., Ch.B. J. Litt, M.B., Ch.B., D.P.H. Margaret T. McCaffrey, M.B., B.Ch., B.A.O., D.C.H., D.P.H. Audrey Seddon, M.B., Ch.B., D.R.C.O.G.

NURSING STAFF

Superintendent Health Visitor	..	Miss F. Holden, S.R.N., S.C.M., H.V.Cert.
Deputy Superintendent	.. .	Miss J. MacEachern, S.R.F.N., S.R.N., H.V.Cert.

HOME NURSING

Superintendent	.. . . .	Miss C. M. Ratcliffe, S.R.N., S.C.M., H.V.Cert.
Assistant Superintendent	.. .	Mrs. E. J. Lee, S.R.N.

MIDWIFERY

Non-Medical Supervisor	.. .	Miss C. M. Ratcliffe, S.R.N., S.C.M., H.V.Cert.
------------------------	------	---

DAY NURSERIES

Supervisor	Miss L. W. Booth, R.S.C.N., S.C.M., H.V.Cert.
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SANITARY INSPECTION

Chief Sanitary Inspector	.. .	T. Williams, M.R.S.I., M.S.I.A.
Deputy Chief Sanitary Inspector		N. Ryce, M.R.S.I., M.S.I.A.

CLERICAL STAFF

Chief Clerk	.. . . .	T. Ryder, D.P.A., A.C.C.S.
Administrative Assistant	.. .	W. Greenhalgh

MENTAL HEALTH SERVICE

Duly Authorised Officers	.. .	J. F. Bennett E. L. Mayoh
Supervisor—Occupation Centre		Miss M. E. C. Tyler, Dip. N.A.M.H.

DOMESTIC HELP SERVICE

Domestic Help Organiser	.. .	Mrs. A. G. Barber
-------------------------	------	-------------------

AMBULANCE SERVICE

Superintendent	.. . . .	V. T. Williams
Deputy Superintendent	.. .	H. Baber

ANALYST

Borough Analyst	F. Morris, A.M.C.T., F.R.I.C.
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BATHS AND WASHHOUSES

Managers	Bridgeman Street Baths	A. Markham
		High Street Baths	W. Cameron
		Moss Street Baths	.. . . .	J. L. Gibson
		Rothwell Street Washhouse	.. . . .	A. L. Duckworth
		Turkish Baths	.. . . .	W. Burns

PART I

STATISTICAL INFORMATION

Summary of Statistics

Births

Deaths

Infant and Neo-Natal Mortality

Deaths from Cancer

SUMMARY OF STATISTICS, 1953

COUNTY BOROUGH OF BOLTON

Position	Lat. 53° 35' N. Long. 2° 27' W.
Elevation above sea level	230 ft. to 1,450 ft.
Geological Formation	Boulder Clay and Sand over Coal Measures
Rainfall (Av. 1887-1953, 44.400")	36.486"
Area in Acres (Land and Inland Water)	15,279
Population (Census 1921)	178,683
„ (Census 1931)	177,250
„ (Census 1951)	167,162
„ (Estimated Civilian Population, 1953)	165,600
New Houses Certified including Flats, 1953.. .. .	662
Existing buildings altered to provide dwelling accommodation, 1953	2
Estimated No. of Houses in the Borough at 31st December, 1953	55,784
Rateable Value at 1st April, 1953	£1,159,999
Rate at 1d. in the £ estimated to produce	£4,725
Births	2,434
*Birth Rate (Corrected)	14.54
Still Births.. .. .	56
Still Birth Rate (per 1,000 total Births).. .. .	23.0
Deaths	2,111
*Death Rate (Corrected)	12.61
*Average Death Rate (1944-1953)	13.91
*Heart and Circulation Death Rate	6.37
*Cancer Death Rate	2.19
*Death Rate from diseases of the Respiratory System	1.80
*Pulmonary Tuberculosis Death Rate	0.12
Infant Mortality (Deaths under one year per 1,000 live births)	27.93
Diarrhoea Death Rate (Deaths under two years per 1,000 live births).. .. .	0.0
Puerperal Death Rate (per 1,000 total births)	1.64

ENGLAND AND WALES—

*Birth Rate	15.5
*Death Rate.. .. .	11.4
Infant Mortality (Deaths under one year per 1,000 live births).. .. .	26.8
Diarrhoea and Enteritis (under two years), (Death rate per 1,000 live births)	1.07

*Per thousand of population

VITAL STATISTICS

Births:

There were 2,434 live births to Bolton residents, 1,274 males and 1,160 females. The birth rate per 1,000 of the population was 14.54.

Of this total, 576 live births occurred at home, 986 in Bolton District General Hospital, 269 in Haslam Maternity Home, 279 in Havercroft Maternity Home and 316 in Heaton Grange Maternity Home. The remaining 8 births took place in other hospitals and maternity homes outside Bolton.

Still Births:

The number of still births was 56, giving a still birth rate of 23.0 per 1,000 total births.

Deaths:

There were 2,111 deaths (1,067 males, 1,044 females) giving a corrected death rate of 12.61 per 1,000 of the population.

A total of 654 persons, whose usual place of residence was in the county borough, died outside the borough; of these, 586 died either in the Bolton District General Hospital or in Townleys Annexe.

Non-residents who died in the area numbered 124.

The table on page 14 gives a summary of the principal causes of death, by age.

Deaths from Puerperal Causes:

There were 4 deaths from puerperal causes giving a maternal mortality rate of 1.64 per 1,000 total births.

Infant Mortality:

The following table shows the number of infant deaths from various groups of disease.

Cause of Death	Age at Death					Total for each cause
	Under 4 weeks	4 weeks to 3 months	3 to 6 months	6 to 9 months	9 to 12 months	
Pneumonia	1	1	4	2	1	9
Other Respiratory Diseases ..	5	2	1	1	—	9
Gastritis and Diarrhoea	—	—	—	—	—	—
Prematurity	21	—	—	—	—	21
Congenital Malformations ..	9	3	1	—	—	13
Accidents	1	1	—	1	—	3
Birth Injury	6	—	—	—	—	6
All other causes	3	1	—	1	2	7
TOTALS	46	8	6	5	3	68

CAUSE OF DEATH	No. of Deaths	Per- centage of Grand Total	Males	Fe- males	AGE																											
					0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60	60 to 65	65 to 70	70 to 75	75 to 80	80 to 85	85 to +						
Tuberculosis of Respiratory System ..	21	0.995	12	9	-	-	-	-	-	-	-	-	-	3	1	2	3	2	2	3	2	2	1	-	-	-	-	-	-			
Tuberculosis, other ..	3	0.142	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-			
Syphilitic disease ..	5	0.237	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Diphtheria ..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Whooping Cough ..	1	0.047	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Meningococcal Infections ..	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Acute poliomyelitis ..	1	0.047	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Measles ..	3	0.142	2	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Other infective and parasitic disease ..	3	0.142	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Malignant neoplasm, Stomach ..	70	3.316	46	24	-	-	-	-	-	-	-	-	-	-	3	1	6	7	8	15	9	12	4	-	-	-	-	-	-			
" " Lung & Bronchus ..	66	3.126	56	10	-	-	-	-	-	-	-	-	-	-	1	4	7	10	14	10	13	3	3	-	-	-	-	-	-			
" " Breast ..	35	1.658	-	35	-	-	-	-	-	-	-	-	-	-	2	2	5	2	5	9	4	4	3	1	-	-	-	-	-			
" " Uterus ..	17	0.805	-	17	-	-	-	-	-	-	-	-	-	-	1	1	3	2	1	2	1	1	4	1	1	1	1	1	1			
" Other malignant & lymphatic neoplasms ..	175	8.290	85	90	1	-	-	-	-	-	-	-	-	2	1	4	3	16	10	15	18	29	27	32	15	2	-	-	-			
Leukaemia and Aleukaemia ..	9	0.426	3	6	-	-	-	-	-	-	-	-	-	-	2	1	2	1	2	1	2	1	3	3	-	-	-	-	-			
Diabetes ..	10	0.474	3	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Vascular lesions of nervous system ..	308	14.590	125	183	5	-	-	-	-	-	-	-	-	-	4	3	7	4	15	28	46	78	61	34	23	8	-	-	-			
Coronary disease, Angina ..	264	12.506	174	90	-	-	-	-	-	-	-	-	-	-	1	2	12	12	28	30	52	49	48	22	8	-	-	-	-			
Hypertension with heart disease ..	59	2.795	29	30	-	-	-	-	-	-	-	-	-	-	-	3	2	5	8	4	10	4	11	10	2	-	-	-	-			
Other heart disease ..	298	14.117	109	189	1	-	-	-	-	-	-	-	-	2	3	5	6	8	14	11	34	48	65	52	49	2	-	-	-			
Other circulatory disease ..	126	5.969	54	72	-	-	-	-	-	-	-	-	-	1	1	1	1	2	2	4	4	14	24	37	17	22	-	-	-			
Influenza ..	16	0.758	8	8	-	-	-	-	-	-	-	-	-	-	1	-	1	1	2	2	2	4	1	1	2	2	-	-	-			
Pneumonia ..	112	5.306	56	56	9	1	-	-	-	-	-	-	-	-	4	3	6	7	14	7	23	20	12	3	9	1	-	-	-			
Bronchitis ..	146	6.916	84	62	3	1	-	-	-	-	-	-	-	-	2	3	5	2	9	16	31	26	24	13	9	1	-	-	-			
Other diseases of respiratory system ..	25	1.184	16	9	3	1	-	-	-	-	-	-	1	-	1	1	1	1	5	3	5	1	1	1	1	1	1	1	1			
Ulcer of stomach and duodenum ..	17	0.805	16	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Gastritis, Enteritis and Diarrhoea ..	7	0.332	4	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Nephritis and Nephrosis ..	40	1.895	23	17	-	-	-	-	-	-	-	-	-	1	1	2	1	3	2	6	4	1	1	1	1	1	1	1	1			
Hyperplasia of Prostatic ..	7	0.332	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Pregnancy, childbirth and abortion ..	4	0.190	-	4	-	-	-	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Congenital malformations ..	16	0.758	8	8	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Other defined and ill-defined diseases ..	153	7.248	78	75	29	3	2	-	-	-	-	-	-	-	1	3	9	5	6	12	15	15	19	15	8	1	-	-	-			
Motor vehicle accidents ..	11	0.521	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
All other accidents ..	55	2.605	36	19	3	-	-	-	-	-	-	-	-	2	1	1	5	2	5	1	2	3	6	1	5	1	-	-	-			
Suicide ..	25	1.184	16	9	-	-	-	-	-	-	-	-	-	1	2	2	2	2	3	2	5	1	1	1	1	1	-	-	-			
Homicide and operations of war ..	3	0.142	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	2111	100.00	1067	1044	68	7	5	4	5	10	4	3	8	15	13	27	41	105	93	161	184	307	340	360	216	135	-	-	-			

Infant Mortality Rates for Selected Causes, 1944-1953 per thousand live births:

Cause Groups	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953
Respiratory ..	9.3	9.7	7.5	5.9	7.6	7.7	5.1	12.5	6.4	7.4
Gastritis and Diarrhoea ..	3.8	3.7	2.6	2.9	3.1	0.7	2.4	1.6	1.3	—
Prematurity ..	19.7	15.4	12.4	13.3	14.1	11.5	12.6	15.4	7.6	8.6
Congenital Malformations	10.1	4.9	8.2	7.7	4.5	6.6	9.1	4.0	5.9	5.3
All Other Causes	14.5	13.4	7.6	7.1	8.9	4.0	6.3	7.3	7.2	6.6
TOTAL RATE— BOLTON ..	57.4	47.1	38.3	36.9	38.2	30.5	35.5	40.8	28.4	27.9
TOTAL RATE— ENGLAND AND WALES	46	46	43	41	34	32	29.8	29.6	27.6	26.8

The infant mortality rate amongst the legitimate children was 27.95 and amongst the illegitimate children, 36.7 per 1,000 live births in each category.

Deaths under Four Weeks:

The part of the infant mortality which occurs in the first four weeks of life is called the neo-natal mortality. There were 46 deaths of infants under four weeks giving a neo-natal mortality rate of 18.9 per 1,000 live births.

The causes of death during the first four weeks of life were as follows:—

Causes of Death	0-7 days	8-14 days	15-21 days	22-28 days	Total under 29 days
Pneumonia	—	—	1	—	1
Other Respiratory Diseases ..	—	—	1	—	1
Atelectasis	4	—	—	—	4
Prematurity	20	1	—	—	21
Congenital Malformations ..	8	1	—	—	9
Accidents	—	1	—	—	1
Birth Injury	6	—	—	—	6
Other Causes	2	1	—	—	3
TOTAL	40	4	2	—	46

Deaths from Cancer

Localisation of Disease, Number of Deaths and Rate Per Cent of Total Deaths annually for the past ten years

SITE	1953	1952	1951	1950	1949	1948	1947	1946	1945	1944										
Stomach	70	3,316	77	3,394	78	2,938	74	3,135	53	2,343	69	3,123	60	2,618	62	2,769	57	2,634	61	2,740
Lung & Bronchus . .	66	3,126	69	3,041	48	1,808	39	1,652	41	1,812	35	1,584	35	1,527	30	1,339	24	1,109	17	0,763
Breast	35	1,658	40	1,763	29	1,092	19	0,805	31	1,370	37	1,674	37	1,614	38	1,697	33	1,524	33	1,482
Uterus	17	0,805	20	0,881	20	0,755	17	0,720	26	1,149	22	0,995	15	0,654	22	0,983	15	0,693	9	0,404
Other Sites	175	8,290	176	7,757	185	6,968	203	8,601	175	7,736	195	8,827	188	8,202	161	7,191	157	7,255	176	7,906
Total Deaths from Cancer	363	17,195	382	16,836	360	13,559	352	14,915	326	14,412	358	16,206	335	14,616	313	13,979	286	13,216	296	13,297
TOTAL DEATHS (All Causes) . .	2,111	2,269	2,269	2,655	2,360	2,262	2,209	2,292	2,239	2,164	2,226									

PART II

LOCAL HEALTH SERVICES

Care of Mothers and Young Children

Midwifery

Health Visiting

Home Nursing

Vaccination and Immunisation

Ambulance

Prevention of Illness, Care and After-Care

Home Help

Mental Health

CARE OF MOTHERS AND YOUNG CHILDREN

Ante-Natal Clinics:

Two Ante-Natal Clinics were held weekly at the Civic Centre throughout the year. The clinics were staffed by a medical officer, a midwife, a health visitor and a clerk. The midwives each attended in turn.

A total of 96 clinics were held, at which 598 expectant mothers booked a midwife, and in addition, 2,358 return visits were made. A hundred and twenty-three visits were also arranged by appointment for the purpose of Post-Natal examinations; the mothers in these cases attended towards the end of the Ante-Natal Clinics. The average attendance at each clinic was 32.

Ante-Natal Relaxation Classes were started in September and are reported under Physiotherapy.

Routine Chest X-Ray of expectant mothers has not yet been developed but it is expected that this will be arranged in the near future.

BLOOD SPECIMENS:

Each expectant mother, on her first attendance at the clinic, had a specimen of blood taken for the estimation of haemoglobin, Rhesus group and Wasserman reaction. In the case of some Rhesus negative expectant mothers, a further specimen was taken at 32 weeks to determine whether anti-bodies had developed.

A total of 612 blood specimens was taken. In 84 cases, the expectant mothers were Rhesus negative, and 32 repeat examinations were made for anti-bodies. Seven expectant mothers were found to have a positive Wasserman or Kahn reaction and in these cases, arrangements were made for treatment. From the 432 cases in which the haemoglobin was estimated, the following results were obtained:—

HAEMOGLOBIN				PERCENTAGE OF PATIENTS
Under 50%	..	..	..	Nil
50 — 60%	..	..	..	1.2
60 — 70%	..	..	..	7.7
70 — 80%	..	..	..	40.0
80 — 90%	..	..	..	37.5
90 — 100%	..	..	..	12.7
Over 100%	..	..	..	0.9

Where necessary, iron therapy in the form of "Fersolate" tablets was given and the haemoglobin was checked again at a later date in pregnancy.

It will be the usual practice in 1954 to give "Fersolate" tablets to all expectant mothers attending the clinic and to re-estimate the haemoglobin approximately eight weeks before the expected date of confinement. It is also intended to have a supply of welfare orange juice and vitamins available at the Ante-Natal Clinic.

CONSULTANT CLINICS:

Because of the small numbers involved, it was decided to suspend the Consultant Clinic at the Civic Centre, and arrangements were made for any case requiring specialist opinion to be seen at the Bolton District General Hospital. A total of 58 cases was referred to a consultant in this way, and 8 cases referred for X-Ray.

The reasons for referring these cases were as follows:—

	No. OF CASES
DIRECTLY CONNECTED WITH PREGNANCY:	
Pre-eclamptic toxæmia	11
Malpresentation	10
Cephalo pelvic disproportion	9
Multiple pregnancy	5
Hydramnios	2
Rhesus negative with anti-bodies	3
Ante-partum hæmorrhage	1
Post maturity	1
ASSOCIATED CONDITIONS:	
Anæmia	5
Mental Condition	4
Bronchiectasis	1
Rheumatoid Arthritis	1
Positive Wasserman	1
Vulval Varicosities	1
Pyelitis	1
Compassionate reasons	2

It is interesting to note that of the 10 cases referred because of malpresentation, 8 were in their fifth or subsequent pregnancy.

HOSPITAL MEDICAL RECORDS:

During November, arrangements were made with the Bolton District General Hospital and the Maternity Homes for the exchange of ante-natal records of women attending the local authority clinics and who were booked for domiciliary confinement and had had previous confinements in hospital or a maternity home. Relevant information was transferred to our records for the benefit of the midwife and the general practitioner. In several instances, this information has assisted in recommending for hospital confinement on medical grounds.

Child Welfare Centres:

An additional Child Welfare Centre was opened towards the end of January and was held on Friday afternoon each week at The Withins, which is one of the Local Education Authority's clinics. The average attendances have shown that there was a definite need for a centre in this area.

The High Street Centre was closed on the 2nd April at the expiration of six months' notice. No alternative suitable premises were available so that this Centre has not been replaced.

From December, the session at Lever Edge Lane School was held fortnightly instead of weekly, the attendances not justifying a weekly session.

Vaccination of children in attendance at Infant Clinics commenced on the 1st January. During the year, 731 children were vaccinated and 702 had a positive result. This, added to vaccinations done as formerly by family doctors, has improved the overall vaccination picture for the area.

Mothercraft teaching was given to senior schoolgirls and arrangements were made for two or three girls at a time to attend the Centres.

Individual advice was given to mothers by the Health Visitors, and a few group talks were undertaken. Group talks are an integral part of a Health Visitor's work at the Centres and although a start was made in this direction, the effort is to be increased in the future.

The number of children in attendance at the Centres was 3,476 and the total number of attendances was 37,602, distributed amongst the following areas:—

Attendances at Child Welfare Centres

Centre	Number of Sessions	Total Number of Attendances	Average Number of Attendances per Session
Astley Bridge	51	2,543	50
Chalfont Street	46	1,955	43
Chorley Old Road	50	2,477	50
Civic Centre (1)	46	2,360	51
Civic Centre (2)	50	2,457	49
Civic Centre (3)	52	2,126	41
Daubhill	51	3,283	64
Deane	46	2,057	45
Delph Hill	47	2,959	63
Halliwell	48	3,005	63
High Street	13	543	42
Lever Edge Lane	47	1,205	26
Rosehill	49	2,980	61
Tonge Fold	46	2,278	50
Tonge Moor	49	3,267	67
The Withins	47	2,107	45
TOTALS	738	37,602	51

Medical Officers in charge of the Child Welfare Centres referred 77 children to hospital consultants after having first obtained the family doctor's consent, as follows:—

Chest Physician	1
Dermatologist	11
E.N.T. Surgeon	7
Ophthalmic Surgeon	17
Orthopaedic Surgeon	13
Paediatrician	18
General Surgeon	10
TOTAL	77

Approximately one-third of the total issue of Welfare Foods in Bolton was made from the Infant Clinics where 26,448 bottles of orange juice, 8,622 bottles of cod liver oil, and 1,633 packets of vitamin A and D capsules were issued. Some mothers prefer to take Rose Hip Syrup instead of orange juice and Vitamin A and D concentrate instead of cod liver oil. These are supplied to mothers attending the clinics at a reasonable cost. The take up of Welfare Foods is approximately orange juice—28%, cod liver oil—26%, Vitamin A and D—37% of the potential demand. These are very low figures.

Fifty-seven voluntary helpers continued to give their much valued assistance at Child Welfare Centres, selling welfare foods and carrying out other essential but non-professional duties and thus relieving health visitors for their primary duty of home visiting.

More voluntary personnel, however, are needed, particularly on Saturday morning for the fortnightly clinic held at Lever Edge Lane.

Homes for Mothers and Children:

Three families—3 mothers and 10 children—were recommended and were admitted to the Brentwood Recuperative Centre in Cheshire, which provides for women of limited resources with young children. The families were assessed and a charge was made. Unfortunately, two of the families did not settle down and returned home after one day.

Care of Unmarried Mothers:

In conjunction with the Bolton Moral Welfare Association, arrangements were made for 18 unmarried mothers to be maintained in suitable homes for varying periods from 8 to 22 weeks. All made some contribution to the cost of maintenance.

Premature Babies:

Prematurity is responsible generally for a considerable number of neo-natal deaths. Altogether, 152 premature babies were notified in Bolton. Of these, 123 were born in hospital and 29 at home. There were 25 neo-natal deaths but 127 prematures survived twenty-eight days. Of those born at home, 3 were subsequently removed to hospital.

Analysis of Live Premature Births

Weight at Birth	Born in Hospital			Born in Maternity Home		
	Total	Died in first 24 hrs.	Survived 28 days	Total	Died in first 24 hrs.	Survived 28 days
3 lbs. 4 ozs. or less (1,500 gms. or less)	21	11	5	—	—	—
Over 3 lbs. 4 ozs. up to and including 4 lbs. 6 ozs. (1,500-2,000 gms.)	11	—	11	4	—	4
Over 4 lbs. 6 ozs. up to and including 4 lbs. 15 ozs. (2,000-2,250 gms.)	17	1	14	6	—	5
Over 4 lbs. 15 ozs. up to and including 5 lbs. 8 ozs. (2,250-2,500 gms.)	44	—	44	20	2	18
TOTAL	93	12	74	30	2	27

Weight at Birth	Born at Home and nursed entirely at Home			Born at Home and transferred to Hospital		
	Total	Died in first 24 hrs.	Survived 28 days	Total	Died in first 24 hrs.	Survived 28 days
3 lbs. 4 ozs. or less (1,500 gms. or less)	—	—	—	—	—	—
Over 3 lbs. 4 ozs. up to and including 4 lbs. 6 ozs. (1,500-2,000 gms.)	2	1	1	—	—	—
Over 4 lbs. 6 ozs. up to and including 4 lbs. 15 ozs. (2,000-2,250 gms.)	1	—	1	1	—	1
Over 4 lbs. 15 ozs. up to and including 5 lbs. 8 ozs. (2,250-2,500 gms.)	23	1	22	2	1	1
TOTAL	26	2	24	3	1	2

A Premature Baby Unit established at the Bolton District General Hospital contains 4 incubators and 6 cots. Extension of accommodation up to 18 in the case of need is possible. Midwives or Family Doctors wishing to arrange the admission of a premature baby apply direct to the Unit. A midwife from the Premature Baby Unit with full equipment, including oxygen, is then sent by ambulance to collect the baby.

The Borough Ambulance Station is also equipped with premature baby equipment consisting of a Sorrento Cot and oxygen, available at any time if it is thought desirable to nurse the baby at home.

The arrangements worked satisfactorily.

Infant and Neo-Natal Mortality:

The huge saving of child life over the past ten years is one of the greatest achievements of modern times. Bolton like the rest of the country has experienced this fortunate change. The rates are given per thousand live births:—

Year	Bolton				England & Wales
	Neo-Natal Mortality Rate	No. of Neo-Natal Deaths	Infant Mortality Rate	No. of Infant Deaths	Infant Mortality Rate
1943	28.8	75	50.2	131	49.0
1944	34.5	100	57.4	166	46.0
1945	31.7	78	47.1	116	46.0
1946	24.8	76	38.3	117	43.0
1947	20.9	71	36.9	128	41.0
1948	22.02	64	38.2	111	34.0
1949	18.01	49	30.5	83	32.0
1950	20.0	51	35.5	90	29.8
1951	23.03	57	40.8	101	29.6
1952	16.5	39	28.4	67	27.6
1953	18.9	46	27.93	68	26.8

Stillbirths:

There has also been an improvement in the Stillbirth Rate but not to quite the same extent as with Infant Mortality. Rates are given per 1,000 total births:—

Year	Bolton		England & Wales
	Still Birth Rate	No. of Still Births	Still Birth Rate
1943	38.0	103	30
1944	41.7	126	28
1945	32.6	83	28
1946	32.6	103	27
1947	22.3	77	24
1948	26.79	80	23
1949	27.53	77	23
1950	19.3	50	23
1951	24.05	61	23
1952	27.57	65	22.7
1953	23.0	56	22.4 *

*Provisional figure

Illegitimacy:

There were 109 illegitimate live births which was 4.47% of all live births in the Borough. The figure for England and Wales was 4.6%.

There were 7 illegitimate still births.

Day Nurseries:

A total of 286 places were available at the six nurseries controlled by the Authority. The distribution of accommodation was as follows:—

Nursery	Accommodation	Average Daily Attendance
Arkwright Street	44	37.19
Newport Street	60	49.29
Park House	35	23.07
Shaw Street	50	38.38
Merchall	47	41.33
Roxalina Street	50	49.22
TOTAL	286	238.48

Park House Nursery also had accommodation for 15 resident children, an increase of 3 during the year at the request of the Children's Committee to assist in the carrying out of duties under Section 13(vi) of the Children's Act.

The main function of the day nurseries was to provide accommodation for:—

- Children of mothers compelled to work because of social reasons.
- Children of mothers undertaking skilled employment in the cotton mills.

The total number of children who attended during the year was 758.

STAFF:

At the 31st December, 1953, the staff consisted of:—

Day Nursery Supervisor ..	1	Nursery Nurses	20
Matrons	6	State Enrolled Assistant Nurse	1
Deputy Matrons	5	Nursery Assistants	17
Wardens	6	Nursery Students	14

TOTAL STAFF 70

Analysis of reasons for attendance

Day Nurseries: No. of children on Register at 31/12/53	Arkwright Street	Mere- hall	Newport Street	Park House	Roxalina Street	Shaw Street	Total
	47	49	68	31	56	50	301
Mothers employed in Mills	29	30	34	16	38	22	169
Mothers employed in Clothing Factories..	2	6	5	2	1	6	22
Mothers employed as Nurses, etc.	1	4	2	1	—	—	8
Mothers employed in Offices	2	—	4	2	1	1	10
Mothers employed in Engineering Works	3	2	4	1	1	2	13
Mothers employed as Shop Assistants ..	1	—	2	1	1	4	9
Mothers employed as Home Helps	—	—	2	1	—	—	3
Mothers employed in Canteens.. .. .	2	—	1	—	1	2	6
Mothers employed in other occupations ..	4	5	5	2	5	6	27
Mothers in poor health	—	—	1	—	—	1	2
Mothers in hospital ..	—	—	3	1	—	1	5
Mothers deceased ..	—	—	—	—	—	—	—
Mothers who deserted children	—	—	—	—	2	—	2
Mothers with 2 children in Nursery	3	2	5	4	6	5	25
TOTAL.. ..	47	49	68	31	56	50	301

In the above were included the following:—

Mothers separated or divorced	4	2	9	3	2	3	23
Widows	—	1	5	1	—	3	10
Unmarried Mothers ..	5	6	4	2	3	5	25

The waiting list at the beginning of the year was 154, and at the end of the year was 64. The decrease was probably due to the increased charges introduced in February.

CHARGE FOR DAY NURSERY ACCOMMODATION:

In accordance with the terms of the National Health Service Acts 1946/1952, the Council decided that the charges for day nursery accommodation which had been standard for all cases at 2/6 per day and without any form of assessment of means, should now be modified to take into account the joint earnings of the parents of the child, and that a new scale of charges should be devised. These changes came into operation on the 2nd February, 1953. The minimum charge was 2/6 and the maximum 11/3 per day, varying according to the result of assessment. Cases of hardship, on application, were referred to a Special Sub-Committee.

The result of this change is summarised below for those children in attendance at the year end.

Number of Cases

CHARGES PAYABLE AT 31/12/53	Arkwright Street	Mere- hall	Newport Street	Park House	Roxalina Street	Shaw Street	TOTAL
2/6d. per day ..	10	6	18	8	6	12	60
2/9d. " " ..	3	—	3	1	1	3	11
3/- " " ..	2	2	4	2	3	—	13
3/3d. " " ..	—	2	1	1	2	2	8
3/6d. " " ..	1	—	6	1	4	1	13
3/8d. " " ..	—	4	1	2	4	1	12
3/10d. " " ..	2	1	2	—	3	4	12
4/1d. " " ..	1	2	6	4	4	2	19
4/4d. " " ..	6	2	3	—	2	4	17
4/7d. " " ..	5	3	4	—	2	3	17
4/10d. " " ..	6	2	1	4	4	1	18
5/2d. " " ..	3	11	5	3	5	2	29
5/6d. " " ..	1	6	6	1	5	1	20
6/3d. " " ..	3	4	3	1	3	5	19
7/9d. " " ..	1	2	1	1	2	—	7
9/6d. " " ..	2	—	2	2	—	2	8
11/3d. " " ..	1	2	—	—	1	1	5
NON-SCALE CHARGES— AS RESULT OF APPEALS							
2/7½d. per day ..	—	—	—	—	—	2	2
3/1d. " " ..	—	—	2	—	—	—	2
3/3d. " " ..	—	—	—	—	—	2	2
3/5d. " " ..	—	—	—	—	2	—	2
3/8d. " " ..	—	—	—	—	—	2	2
4/3d. " " ..	—	—	—	—	2	—	2
6/6d. " " ..	—	—	—	—	1	—	1
TOTAL.. ..	47	49	68	31	56	50	301

There were 77 Appeals against Assessments, affecting 93 children.

Of these 41 Appeals were accepted, affecting 56 children,

and 36 Appeals were refused, affecting 37 children.

INFECTION:

Shaw Street Nursery re-opened on January 7th, after an epidemic of sonne dysentery in December, 1952. There were mild outbreaks of chickenpox, measles, whooping cough, mumps and sonne dysentery, distributed in the following way.

Number of Cases

NURSERY	Measles	Whooping Cough	German Measles	Chicken-pox	Mumps	Sonne Dysentery	Scarlet Fever
Arkwright Street	9	1	3	2	—	25	—
Newport Street ..	33	1	—	18	—	2	—
Park House ..	5	10	5	—	2	—	1
Shaw Street ..	7	2	2	—	1	—	—
Merchall	—	1	—	4	2	1	2
Roxalina Street ..	5	2	1	17	12	1	2

In April, it was decided to segregate the daily children from the resident children at Park House Nursery since it appeared likely that the daily children were infecting the resident children far too frequently. Since this re-arrangement was imposed, the incidence of infection has been considerably reduced.

Routine medical inspections of the children were carried out by the medical staff and every child was offered immunisation against whooping cough and diphtheria. The parents responded well to this offer and there were only 10 refusals.

TRAINING OF NURSERY NURSES:

The course of training lasts two years and during this time, students spend sixteen weeks each year at the Nursery Training Centre, 40, Chorley New Road, which is under the administration of the Local Education Authority. The weeks of lectures alternate with weeks of practical work with children from 0-2 years of age in one of the five training day nurseries, or with children from 2-5 years of age in a local nursery school or nursery class.

Fifteen nursery students were successful in obtaining the certificate of the National Nursery Examination Board. After qualification, some of the girls were employed in day nurseries by the Local Health Authority, or in nursery schools or classes by the Local Education Authority. Several gained employment in nurseries in the County and others sought private posts.

It is interesting to note that at the present time, 4 nursery nurses who received their training in Bolton, are engaged in the premature baby unit and maternity wards at the Bolton District General Hospital, caring specifically for the very young baby.

CLOSURE OF COTTON STREET NURSERY:

Cotton Street Nursery ceased to function as a day nursery in September in order to adapt the premises as an Occupation Centre for Mental Defectives.

The children on the register were transferred to Merchall, Arkwright Street, Park House and Newport Street nurseries.

The matron was re-employed as a full-time clinic nurse. The remaining nursery staff and domestic staff were transferred to other nurseries.

Nurseries and Child Minders Regulation Act, 1948:

Fourteen supervisory visits were paid to the six industrial nurseries which provided accommodation for 240 children.

There were isolated cases of measles, whooping cough, german measles, mumps, and chickenpox in these nurseries, and 12 cases of sonne dysentery at the United Thread Mills nursery in December, 1953.

There were no registered Child Minders in the Borough.

Physiotherapy:

Until August 31st, the Physiotherapist was engaged part-time for Massage and Remedial exercises and the work was carried out on two sessions per day for three days a week. During that time, the work consisted mainly of treatment given to children with minor degrees of postural defect referred by the medical officers. In addition to these children, a number of spastic cases were given massage and exercises.

On September 1st, the Physiotherapist was engaged full-time and in addition to Massage and Exercises, Ultra Violet Light treatment previously carried out by Health Visitors, was undertaken by the Physiotherapist. Three sessions per week were devoted to Ultra Violet Light Therapy for children from the Infant Welfare Clinics, and two sessions per week for school children.

From September 1st, Relaxation Classes for expectant mothers were started in conjunction with the Ante-Natal Clinics.

An analysis of the work done is given below:—

	Patients	Treatments	Sessions	New Patients
Massage and Exercises ..	412	1,951	275	108
Ultra Violet Light: Pre-School Children ..	664	3,769	150	296
Ultra Violet Light: School Children	329	1,596	70	139

Relaxation Classes—133 attendances.

Dental Treatment:

The Dental Service for Mothers and Young Children which was suspended in 1948 on the inauguration of the National Health Service, was recommenced in August. Arrangements were made for inspections and treatment to be carried out at Charles Street Clinic each week on Tuesday afternoon, the services of two part-time Dental Officers being available.

All patients attending Ante-Natal Clinics were given appointments at the Dental Clinic for a routine inspection.

Children of Pre-School age were referred by Medical Officers and Health Visitors in the course of their normal duties at Child Welfare Centres and Nurseries or during home visiting.

All patients attending the Clinic were inspected and given advice on Dental Health and were offered any treatment required to make them dentally fit.

All forms of treatment were provided, including the provision of dentures, free of cost to the patient.

The services of a Medical Officer were made available for the purpose of administering General Anaesthetics.

When required, Radiography was undertaken by the X-Ray Department of the Bolton Royal Infirmary.

The services of the Consultant Dental Surgeon at the Dental Department of Bolton and District General Hospital were available for any specialist treatment required.

Arrangements were made with independent dental laboratories for the manufacture of artificial dentures.

Analysis of Priority Dental Care August-December

	Examined	Needing Treatment	Treated	Made Dentally Fit
Expectant and Nursing Mothers	60	53	50	43
Children under five	106	94	70	60

	Extractions	Anaesthetics		Fillings	Scalings or Scaling and gum treatment	Silver Nitrate treatment	Dressings	Radio-graphs	Dentures provided	
		Local	General						Complete	Partial
Expectant & Nursing Mothers. .	131	50	25	12	5	—	14	—	1	—
Children under five	202	22	55	16	—	6	—	—	—	—

Family Planning

Suitable cases who asked for assistance, were referred to the Bolton Family Planning Clinic which is a voluntary association. The Corporation did not contribute to the funds of this clinic.

Clinical Meeting:

A monthly meeting has been arranged in the Paediatric Department of the Bolton District General Hospital between the Corporation Medical Staff and the Staff of the Paediatric Department of the Hospital under the direction of Dr. V. Dickson. Divisional Medical Officers of the Lancashire County Council also

attended, and arrangements are in hand for the Medical Staff from Wigan to join the meeting.

The meetings have been most successful and useful to both Authority and Hospital Staffs and Dr. Dickson is to be congratulated on his enthusiasm, and thanked for the excellent facilities made available to us.

MIDWIFERY

The midwifery service for the Borough and surrounding areas is undertaken at the Obstetrical Department of the Bolton District General Hospital and at the Haslam, Havercroft, and Heaton Grange Maternity Homes, and within the Borough, by the Local Health Authority's domiciliary midwifery service.

The number of midwives notifying their intention to practice, in accordance with the rules of the Central Midwives Board, were:—

In Hospital and Maternity Homes	27
In Domiciliary Practice	12

Of the domiciliary midwives, 8 were municipal midwives, and 4 were engaged in private practice.

Number of midwives remaining in domiciliary practice on 31st December, were:—

Municipal Midwives	7
Private Midwives	2

Domiciliary Confinements:

A total of 573 domiciliary confinements were conducted by municipal and private midwives, in the following numbers:—

MUNICIPAL MIDWIVES		PRIVATE MIDWIVES	
497 as Midwife		29 as Midwife	
46 as Maternity Nurse		1 as Maternity Nurse	
TOTAL 543	an average of 68 cases per midwife per year	TOTAL 30	an average of 7.5 cases per midwife per year

The Municipal Midwives made a total of 11,957 visits to patients during the year. Of these, 2,182 were ante-natal visits, 9,380 during the puerperium, and the remaining 395 were post-natal visits. The Domiciliary Midwife normally visits twice a day for the first three days, and then daily up to and including the fourteenth day.

Analgesics were administered by all midwives employed by the Local Health Authority. Nitrous oxide and air was administered in 447 cases, and pethidine was used in 229 cases. The nitrous oxide apparatus was transported to patients' homes by the Ambulance Service.

Notifications:

The following notifications, in accordance with the rules of the Central Midwives Board, were received:—

	From Domiciliary Midwives	From Maternity Homes
Notification of Still Birth	10	6
Notification of Artificial Feeding	20	123
Notification of Death of Child	—	1

In addition, 157 notices of the commencement of artificial feeding, relating to mothers normally resident in Bolton, were received from the Bolton District General Hospital.

Two notifications of puerperal pyrexia were received in relation to patients delivered in their own homes, and 5 for those delivered in Maternity Homes.

Medical Aid:

On 109 occasions, medical aid was sought from Family Doctors by the Domiciliary Midwives for the following conditions:—

RELATING TO THE MOTHER:										No. OF CASES
ANTE-NATAL CONDITIONS:										
Ante-Partum haemorrhage	..	..	..	..	..	..	..	..	..	3
Toxaemia of pregnancy	..	..	..	..	..	..	..	..	..	2
Abortions	..	..	..	..	..	..	..	..	..	2
DURING LABOUR:										
Prolonged 1st stage	..	..	..	..	..	..	..	..	..	7
Mal-presentations	..	..	..	..	..	..	..	..	..	8
Delay in 2nd stage	..	..	..	..	..	..	..	..	..	3
Others	..	..	..	..	..	..	..	..	..	10
Post-Partum haemorrhage or retained placenta	..	..	..	..	..	..	..	..	..	11
Perineal tears	..	..	..	..	..	..	..	..	..	35
Puerperal rise of temperature	..	..	..	..	..	..	..	..	..	5
Other puerperal conditions	..	..	..	..	..	..	..	..	..	10
Miscellaneous conditions	..	..	..	..	..	..	..	..	..	3
CONDITIONS RELATING TO THE CHILD:										
Prematurity	..	..	..	..	..	..	..	..	..	1
Discharging eyes	..	..	..	..	..	..	..	..	..	5
Other conditions	..	..	..	..	..	..	..	..	..	4
TOTAL	..	..	..	..	..	..	..	..	..	109

The obstetrical emergency team from the Maternity Department of the Bolton District General Hospital was called upon 5 times by domiciliary midwives for the following conditions:—

Ante-Partum haemorrhage	..	2 cases
Intra-Partum haemorrhage	..	2 cases
Post-Partum haemorrhage	..	1 case

Maternal Mortality:

Four maternal deaths were notified, 3 from the Bolton District General Hospital and 1 from Heaton Grange Maternity Home. Causes of death were recorded as:—

- Obstetric shock and inversion of uterus.
- Septicaemia, following abortion of twelve weeks' gestation.
- Adherent placenta and post-partum haemorrhage.
- Occipito-posterior position with forceps delivery—Post-partum haemorrhage—Obstetric shock.

Emergency means of transport:

Transport by car has been available in the past from the Ambulance Depot for night calls only. Since the 1st September, midwives have been authorised to avail themselves of this service at any hour in case of need. The new arrangement has been of considerable value and has enabled the midwife to give immediate attention to urgent cases, particularly those living on the housing estates near the outskirts of the town.

Approval has been obtained for midwives to receive essential car allowances for the use of their own cars in the course of duty. One midwife has claimed this allowance, and two are receiving driving instructions with a view to purchasing cars.

District Midwifery training:

Seven pupil midwives completed the second part of their midwifery training on the district. Six were resident at the District Nurses' Home and one at the home of a training midwife. Special allowances have been authorised for teaching midwives who accommodate pupils in their homes during training. There are two approved teaching midwives on the staff.

Refresher Courses:

It is usual for the Authority to send municipal midwives to Refresher Courses at suitable intervals, but the existing staff had attended a week's Course within the past five years, consequently no arrangements were made.

One midwife resigned to take the Health Visitor's Course, and another retired after over 30 years' service in Bolton.

Housing for Midwives:

The Housing Committee granted the tenancy of a Corporation house on the Johnson Fold Estate to a midwife taking up duties in Bolton, and during the year, two new midwives were also provided with telephones by the Health Committee. The Corporation have provided a telephone for every midwife in the service.

Infection in Maternity Homes:

In August, a woman was admitted to one of the Hospital Management Committee Maternity Homes with a sore throat. Three patients subsequently developed puerperal pyrexia, and one member of the staff a sore throat. Throat and nose swabs were taken. No new admissions were made and the existing patients were discharged as soon as possible. The Home was then closed, thoroughly cleansed, and after fourteen days re-opened, only those members of the staff who had negative nose and throat swabs being allowed to return to duty.

The infection appeared to be due to B-haemolytic streptococci. As a precaution, those members of the staff—7 in number—who were proved to have pathogenic organisms in the nose or throat, were excluded until the condition had been satisfactorily treated. This action controlled the outbreak in a relatively short period.

HEALTH VISITING

Problem families continued to occupy a considerable amount of the Health Visitor's time and the increasing number of visits to the aged and chronic sick also made heavy demands on her visiting sessions.

There were 245 requests by the Geriatric Physician for reports on social conditions for admission to the geriatric wards.

There were also 73 requests for reports on the home conditions of expectant mothers who had applied for admission to the Bolton District General Hospital. Of the latter, only 24 were suitable for home confinement.

From January, all cases of burns and scalds admitted for treatment to Bolton Royal Infirmary were investigated by the health visitors, particular attention being paid to the cause of such accidents. Twenty-five reports were made and it is to be hoped that investigations of this kind will assist in an attempt to educate householders and so eliminate avoidable suffering.

There are many more similar accidents which are not serious enough to need admission to hospital—most of them can be avoided by use of a little care and thought.

The bi-weekly visit of a health visitor to the Bolton District General Hospital for the Paediatric Clinic and ward round has continued. Information regarding diagnosis and treatment of children admitted is automatically made available to the health visitor who will be paying the routine home visits to the child. The paediatrician was also kept informed about the social conditions and background of these children. This mutual assistance has been very valuable.

Staff:

At the end of December there were:—

- 20 Health Visitor/School Nurses
- 6 Student Health Visitors
- 2 Tuberculosis Visitors with H.V. Certificates
- 1 Tuberculosis Visitor with T.A. Certificate

The bursary scheme for training health visitors at the Bolton Technical College in conjunction with the Queen's Institute of District Nursing was continued. Four students were successful in obtaining the Health Visitor's Certificate and six more students commenced the course in September. Practical instruction for the course was given in the department. The students on completion of the course, and after qualification, are engaged on the Health Department staff and they contract to serve the Authority for at least two years. The periodical teaching on the course was given by members of the various Local Authority departments in the surrounding area. A total of 23 lectures were given by members of the Bolton Health Department staff.

During December, eight student health visitors from Manchester spent a week in the department seeing something of the work of the Sanitary Inspectors, Day Nurseries, Home Help Service and Occupation Centre. A Student Health Visitor Tutor from London also spent a few days in training within the department.

Home Visits:

Analysis of domiciliary visits for the complete year

First visits to newly-born babies.. ..	2,398
Subsequent visits under 1 year	12,245
Visits to children 1-5 years	20,133
First visits to expectant mothers.. ..	148
Subsequent visits	84
Puerperal pyrexia visits	6
Ophthalmia Neonatorum	Nil
Infant death enquiries	27
Infectious disease visits	36
Chronic Sick visits	464
After-Carc visits	491
Miscellaneous	1,090
TOTAL	37,122

The increased number of home visits paid to children under one year by the health visitors—14,643 in all—was no doubt partly responsible for the low infant mortality rate for 1952 being maintained in 1953.

Three health visitors were engaged full-time in clinical and visiting duties connected with the Chest Clinic. The visitors attended 600 clinical sessions and made 2,379 visits to tuberculous patients in their own homes. Further details are given under "Tuberculosis."

Hospital Liaison:

During 1952, a new syllabus was published for hospital nurses training for the Certificate of General Nursing. This included, for the first time, the Social Aspects of Disease and was to become compulsory from the 1st January, 1954. After consultation with the Matrons of Bolton District General Hospital and the Royal Infirmary, a programme was prepared to cover this section of the syllabus.

From the beginning of September, two student nurses from each hospital attended the Health Department on alternate Mondays. They accompanied the health visitors on home visiting and to various clinics. The work was varied as much as possible with the object of covering the whole Public Health field.

Lectures on this subject to student nurses were carried out by the Health Visitor Tutor.

Co-operation between Family Doctors and Health Visitors:

At the request of the Local Medical Committee, a meeting was arranged in December between the General Practitioners and the Health Visitors. During this meeting, the ways in which the Health Visitors could be of help to the General Practitioners were fully discussed. The object of the meeting was to bring the health visitor into as close an association with the Family Doctor on the social aspect of medicine, as already exists on the clinical side with the Home Nurse and Midwife.

The doctors were each circularised with a list giving the names of the health visitor on the areas covered by their respective practices. They were also informed of the times the health visitors were available at the Civic Centre.

Since this meeting, a much better understanding has been established which it is fully anticipated will continue in the future. Health Visitors are now receiving active encouragement to meet the Family Doctors in their areas at regularly arranged intervals in order to discuss problems, and mutually exchange information about difficult cases. Development of this new scheme is receiving active attention.

The type of work which will arise from this liaison is summarised in a report recently accepted by both the British Medical Association and the Society of Medical Officers of Health, and which details the desirable features of such close relationship between the Family Doctor and the Health Visitor which already exists in Bolton. The details may be summarised as follows:—

1. Co-operation between general practitioners and the Medical Officer of Health and his staff regarding the health, care, treatment and after-care of all patients is essential.
2. The Local Health Authority has certain statutory obligations regarding the health of the community and the Health Visitor who is employed by the Local Health Authority is under the direction of the Medical Officer of Health. This, however, in no way prevents the Health Visitor from working closely with the General Practitioner and under his guidance in the care of individual patients.

3. Direct consultations should take place between General Practitioners and Health Visitors with a view to the exchange of information regarding individual patients.
4. The General Practitioner is primarily responsible for the health of the individual and the family, while the health and welfare of the family in relation to the community is a responsibility of the Medical Officer of Health and his staff. The close association of all concerned, as members of one team, is of vital importance if these responsibilities are to be adequately fulfilled.

HOME NURSING

The Home Nursing Service continued to function from the District Nurses' Home, Chorley New Road. Structural alterations in the Health Department will be completed early in 1954 which will enable the Home to be closed and the service transferred to the Civic Centre, thus bringing all the Health Services under one roof, with better facilities for liaison with other Health Department activities. All equipment for use by the Home Nurse, and for loan to patients, will be centred in the one Department. Opportunity will then be available for the introduction of a new type of training for Home Nurses on a non-residential basis.

Patients were nursed at the request of the Family Doctor, Medical Officer of Health, or Hospital Authorities.

The service was available from 8.30 a.m. to 10.0 p.m., visits between 7.0 p.m. and 10.0 p.m. being special requests for urgent nursing treatment, and for giving injections of sedative drugs. On an average, between two and four visits have been paid during the late evening rounds.

Staff:

There were some important changes in the nursing staff during the year. The Superintendent Health Visitor acted temporarily as Superintendent of the Service during the first half of the year, while the vacancy existed. A Superintendent of Home Nursing was appointed in March and commenced duty on 1st July, 1953.

The number of trained nurses has increased slightly and the staff position at the end of the year was as follows:—

1 Superintendent		
1 Assistant Superintendent		
7 Full-time Queen's Nurses (including 2 male nurses)		
4 Full-time State Registered Nurses		
3 Full-time State Enrolled Assistant Nurses	Full-time ==	16
3 Part-time Queen's Nurses	} Equivalent of full-time nurses..	= 5
3 Part-time State Registered Nurses		
2 Part-time State Enrolled Assistant Nurses		
<hr/> Total Nurses 24		<hr/> Total Full-time == 21

All part-time Nurses gave approximately 5 hours' service per day.

Comparison with 1952 shows an increase to the staff of 2 State Registered Nurses. The number of nurses was below the recommended number for the

population of the County Borough. There were 21 full-time nurses when 28 were required. This had the effect of increasing the case load on each nurse, and emphasises the need for further recruitment and for starting the training scheme again as soon as possible.

Accommodation was provided at the District Nurses' Home, 68, Chorley New Road, but only three nurses were resident. Nurses prefer not to live a communal life, and this justifies the closing of the Home and non-residential training being introduced using the Civic Centre as headquarters.

Transport:

Three cars, three autocycles, and six bicycles were provided and were in constant use by the nurses. Other nurses used the Corporation buses, reimbursement of payment of fares being made by the Authority. The autocycles have proved very useful and after this initial experiment, must be increased in number to increase the efficiency of a staff below establishment. The nurses' time and energy was reserved for carrying out nursing duties, where formerly, a good deal was spent in exhaustive travelling in hilly districts.

Summary of patients nursed:

Patients being nursed on the 1st January	.. ..	469
New patients attended during the year	.. ..	3,297
TOTAL	.. ..	<u>3,766</u>

The work carried out month by month is shown progressively as follows:—

Month	Number of Patients being nursed at beginning of month	New Cases	Number of Patients being nursed at end of month	Nursing Visits
January.. ..	469	323	465	7,168
February	464	284	464	6,289
March	463	342	463	7,553
April	463	279	441	7,446
May	441	279	455	7,329
June	455	257	458	6,502
July	458	240	460	6,971
August	460	245	460	6,774
September	460	239	478	6,650
October	478	261	476	7,264
November	476	263	481	7,185
December	481	284	497	7,388
TOTALS ..		3,297		84,519

The disposal of cases who ceased to receive nursing attention is analysed below:—

Month	Needing no further nursing	Removed to Hospital	Died	Removed from books for Other Reasons	Totals
January	177	33	48	69	327
February	159	29	38	58	284
March	218	37	34	53	342
April	167	22	53	59	301
May	144	22	37	62	265
June	127	28	31	68	254
July	130	28	27	53	238
August	120	23	40	62	245
September	105	26	23	67	221
October	144	30	30	59	263
November	133	30	33	62	258
December	141	33	36	58	268
TOTALS ..	1,765	341	430	730	3,266

The number of cases being nursed at the year end was 500.

Analysis by Age and Condition:

CONDITION	AGE GROUPS			
	Under 5 yrs.	5-15 yrs.	15-65 yrs.	69-95 yrs.
MEDICAL NURSING:				
Pneumonia	25	17	72	58
Bronchitis, pleurisy and other chest conditions.. .. .	51	12	241	86
Influenza	—	—	18	7
Ear, nose and throat conditions (chiefly tonsillitis and otitis media)	48	59	146	2
Enlarged cervical glands.. .. .	—	6	12	—
Quinsy	—	—	38	—
Rheumatism, arthritis, fibrositis, and sciatica	—	—	69	38
Diseases of the ear	—	—	278	166
Cerebral haemorrhage	—	—	69	142
Thrombo-phlebitis	—	—	17	—
Nephritis, pyelitis, and allied conditions	—	—	44	21
Parkinson's Disease	—	—	10	—
Disseminated sclerosis	—	—	23	—
Anaemia and debility	—	—	107	39
Senility	—	—	—	140
Diabetes	—	—	38	44
Gastric and duodenal ulcers, and cholecystitis	—	—	20	—
Constipation	7	10	66	70
Threadworms	28	28	6	—
Skin diseases, including eczema, impetigo, dermatitis, shingles	7	6	20	9
Cancer	—	—	92	87
X-Ray preparation	—	1	148	50

Analysis by age and condition:—*continued*

CONDITION	AGE GROUPS			
	Under 5 yrs.	5-15 yrs.	15-65 yrs.	69-95 yrs.
SURGICAL NURSING:				
Gynaecological	—	—	266	59
Puerperal conditions	—	—	10	—
Abortions	—	—	7	—
Post-operative dressings and nursing care	—	3	64	15
Burns and scalds	5	1	6	10
Fractures	—	—	10	13
Other injuries to limbs—abrasions and lacerations, bruising	5	2	7	9
SEPTIC CONDITIONS:				
Mastitis	—	—	7	—
Breast abscesses	—	—	37	—
Varicose ulcers of legs	—	—	40	18
Boils, abscesses, carbuncles, and cellulitis	10	—	196	51
MISCELLANEOUS CONDITIONS:				
Eye conditions	—	—	8	—
Epilepsy, melancholia, colitis, cirrhosis of liver and diverticulitis	—	—	40	—
INFECTIOUS DISEASES:				
Pulmonary tuberculosis	—	—	51	1
Erysipilas	—	—	7	—
Ophthalmia	1	—	—	—
Chickenpox	—	—	1	—
Measles	1	—	—	—
MINOR OPERATIONS:				
Circumcisions	6	—	—	—
Tonsillectomy	3	6	—	—
TOTALS	197	172	2,262	1,135
GRAND TOTAL	3,766			

The figures given below show a slight increase in new patients and the number of visits, compared with last year

YEAR	NEW CASES	VISITS
1952	3,199	84,016
1953	3,297	84,519

The Home Nurses paid an average of 19 visits each per day.

More than 40% of the nursing was carried out for the age group over 65 years and as many of these patients live alone or with aged relatives, heavy demands were made on the nurses' time and physical strength.

It is of interest to note the prevalence of diseases of the throat and lungs occurring in the winter months, which was probably partly due to the smoke pollution of an industrial area.

Fifty-two cases of pulmonary tuberculosis have been attended by Home Nurses. The treatment has included, in most cases, daily injections of streptomycin for periods varying from one to three months.

Sick Room Equipment:

A stock of sickroom equipment was retained at the District Nurses' Home for loan to patients, and supplies were also available from the Health Department. These included bed pans, waterproof sheets, air-rings, air-beds and bed rests.

Refresher Courses:

Two nurses attended a residential Refresher Course arranged by the Manchester District Nursing Institution from the 7th to 12th September; three other nurses attended daily in turn.

Visits to Christie Hospital and Holt Radium Institute, and a Geriatric Unit in a Manchester Hospital, were also arranged.

Queen's Nurses' Training:

A State Registered Male Nurse completed a course of training approved by the Queen's Institute of District Nursing, and another State Registered Male Nurse commenced a similar course.

The Home Nursing Service in Bolton was inspected by a Visitor from the Queen's Institute.

VACCINATION AND IMMUNISATION

Vaccination against Smallpox:

When the National Health Service Act became operative in July, 1948, vaccination ceased to be compulsory. It was no longer the responsibility of the Public Vaccinator but of the Family Doctor and Local Health Authority. The decision for or against vaccination in young children became entirely a matter for the parents.

To offset the possibility that this change might lead to a falling off in the number of children vaccinated against Smallpox, arrangements were made for babies to be vaccinated in the Infant Welfare Centres—the age of choice being four months. This arrangement has worked smoothly and well, and babies were vaccinated each week at the fifteen Infant Welfare Centres. Children over 5 years were treated on request at the Health Department, the school clinics, or by their family doctors.

The following table shows the number of persons vaccinated or re-vaccinated.

	Age at Date of Vaccination					TOTAL	TOTAL
	Under 1 year	1 year	2 to 4 years	5 to 14 years	15 years or over	1953	1952
Number vaccinated . .	829	130	296	549	1,471	3,275	869
Number re-vaccinated	5	8	53	286	1,755	2,107	313

The above figures include 4,595 vaccinations carried out by Family Doctors and for which a record card was received in the Health Department.

Comparison of the above figures with those for 1952 reveals a very striking increase in the numbers vaccinated. This was largely explained by the occurrence of an outbreak of smallpox in the districts surrounding Bolton in April and May, when the total vaccinations rose to 1,450 in April and 1,024 in May. Although

this number was made up chiefly of older children and adults, it was satisfying to see that the figures for children under one year of age showed a fairly steady increase throughout the year and reached a total of 829. The total of all persons vaccinated for the first time in 1952 was 869 compared with 3,275 in 1953—nearly four times as many.

Much more important, however, was the very great increase in the number of children under the age of five years who received primary vaccination. This figure doubled itself from 639 in 1952 to 1,255 in 1953.

The number of persons re-vaccinated was also high—2,107 compared with 313 in 1952. This figure was again due to the local incidence of smallpox, the majority of these vaccinations being carried out in April and May when many possible and probable contacts were given new protection.

No complications of vaccination were notified.

The following tables show the effect of the smallpox anxiety during April and May on the demand for vaccination, in spite of the fact that no appeal for mass vaccination was considered necessary.

Vaccination

MONTH	Age in Years					TOTAL
	Under 1	1	2-4	5-14	15 +	
January	28	1	2	5	8	44
February	48	2	3	—	5	58
March	52	10	9	9	20	100
April	132	57	167	366	728	1,450
May	107	34	82	153	648	1,024
June	39	5	5	7	13	69
July	73	5	5	4	13	100
August	67	3	3	1	8	82
September .. .	57	2	7	—	10	76
October	80	2	7	3	8	100
November .. .	101	8	4	—	7	120
December .. .	45	1	2	1	3	52
TOTAL	829	130	296	549	1,471	3,275

Re-Vaccination

MONTH	Age in Years					TOTAL
	Under 1	1	2-4	5-15	15 +	
January	—	1	—	1	10	12
February .. .	—	—	1	3	21	25
March	—	—	2	3	62	67
April	1	2	22	179	1,172	1,376
May	4	5	25	93	408	535
June	—	—	—	1	17	18
July	—	—	1	3	9	13
August	—	—	1	—	18	19
September .. .	—	—	—	2	11	13
October	—	—	—	—	6	6
November .. .	—	—	—	—	14	14
December .. .	—	—	1	1	7	9
TOTAL	5	8	53	286	1,755	2,107

The most important age for primary vaccination is during the first year of life. The efforts during the past year have had the effect of raising the percentage of such children vaccinated, from 23 to 34, of all notified live births.

Special Groups

Vaccination has been offered to all cotton operatives engaged in processes up to and including, the card. No definite evidence exists that these persons are open to special risks from smallpox, but in view of vague suspicion raised in other cotton towns, the offer of vaccination has been made. It is likely that in view of the fine spinning processes peculiar to Bolton, that the risk is small compared with other towns concentrating on the coarse process.

Immunisation against Diphtheria and Whooping Cough:

The preliminary trial period concerning the efficiency of whooping cough vaccine has now passed and the value of this substance in preventing whooping cough, or alternatively, in reducing the severity of an attack, has been generally accepted.

It is at present the practice in Bolton to immunise all young children at about the age of eight months with a combined vaccine which protects against both diphtheria and whooping cough. Exceptions were made on the request of the parent, or if the child had already had an attack of whooping cough, when diphtheria immunisation alone was given.

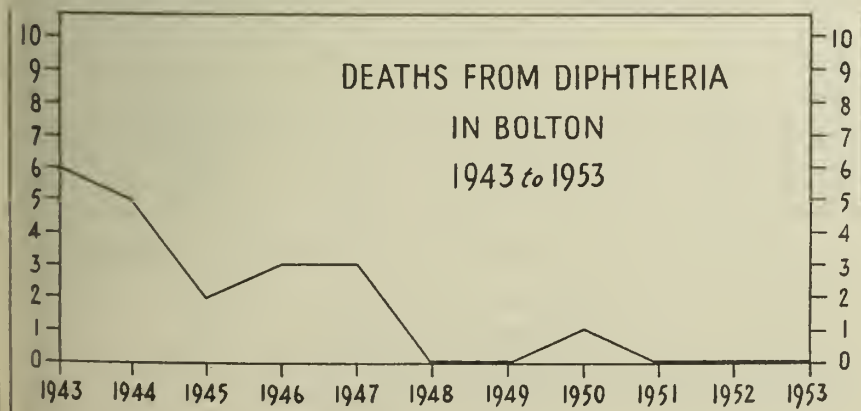
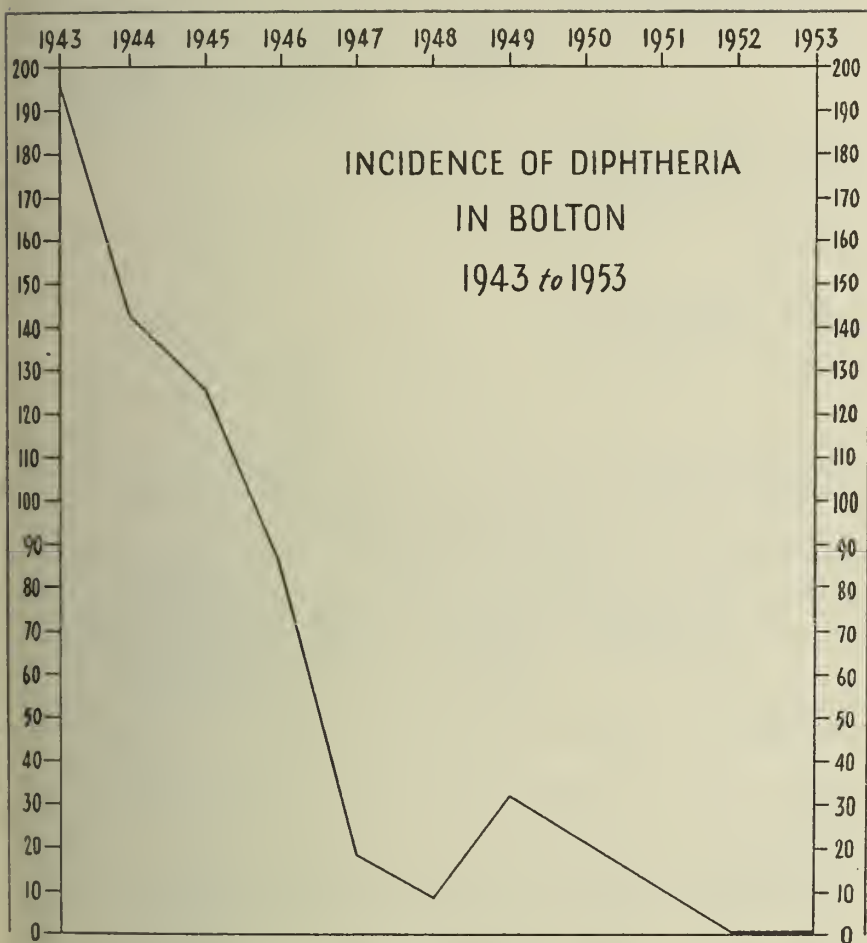
The combined vaccine was given sub-cutaneously into the arm in three monthly doses of 1 c.c., but when diphtheria immunisation alone was given, two smaller doses of the appropriate antigen were given at monthly intervals. Enquiries were made regularly from the parents concerning any reaction following the injections, and it was found that a sore arm or fretfulness was the exception rather than the rule. Children under one year seemed to tolerate the vaccine with greater ease than was the case with older children.

The graph opposite shows the spectacular fall in the incidence of, and deaths from, diphtheria in Bolton during the last ten years.

A study of this graph will reveal the strongest possible argument for the continuation of diphtheria immunisation. Diphtheria is still present in this country and unless a high degree of immunity is maintained amongst young children, the disease can, and will, reappear. There were no cases during the year, and although no better result could be obtained, it should be a point of honour for all concerned, to maintain this satisfactory position.

Whooping cough is still a serious enemy of childhood. Not only is it an exhausting, distressing and protracted illness, but it is sometimes the initiating factor in diseases of the chest such as bronchiectasis and asthma which may become increasingly evident as the child grows up, with serious deterioration of general health.

Parents are now becoming eager to protect their children against whooping cough. The number who received the combined vaccine in 1953 rose to 1,976—an increase of 776 over the previous year.



Source of Immunisation

	Diphtheria Immunisation only	Combined Whooping Cough and Diphtheria	Re-inforcing Injections (Diphtheria only & Whooping Cough and Diphtheria combined)
No. of children immunised at Child Welfare Centres ..	57	978	40
No. of children immunised in Schools	237	580	587
No. of children immunised by General Practitioners and for whom a record card was received in the Health De- partment	106	418	62
	400	1,976	689
GRAND TOTAL		3,065	

Age at Immunisation

Age	Completely Immunised			Re-inforcing Injections (Diphtheria only & Whooping Cough and Diphtheria combined)	TOTAL
	Diphtheria Immunisation only	Combined Whooping Cough and Diphtheria	Whooping Cough * only		
0-1 year	45	626	3	—	671
1-2 years	62	526	3	—	588
2-3 "	8	71	6	—	79
3-4 "	7	36	10	4	47
4-5 "	19	71	6	60	150
Total 0-5 years	141	1,330	28	64	1,535
5-6 years	82	178	18	218	478
6-7 "	71	178	29	148	397
7-8 "	46	105	18	109	260
8-9 "	42	120	13	137	299
9-10 "	7	19	—	8	34
10-11 "	3	7	—	4	14
11-12 "	1	16	—	1	18
12-13 "	3	7	—	—	10
13-14 "	3	12	—	—	15
14-15 "	1	4	—	—	5
Total 5-14 years	259	646	78	625	1,530
GRAND TOTAL	400	1,976	106 *	689	3,065

*Whooping Cough immunisations only are NOT included in total figures

Number of cases of Diphtheria in 1953 Nil
 Number of deaths from Diphtheria in 1953 . . . Nil
 Number of cases of Whooping Cough notified . . . 593
 Number of deaths from Whooping Cough in 1953 . . 1 (aged 6 months)

The danger age for both diseases is below the age of five years, yet many parents are still inclined to leave primary immunisation until the child enters school. It will be seen from the above table that it was necessary to give primary immunisation to 900 children between the ages of 5 and 9 years.

Diphtheria Immunisation in relation to Child Population

Age Groups	Percentage of mid year Population completely immunised
Under 1 year	3.6
Aged 1-4 years	65.9
Aged 5-14 years	82.6
TOTAL UNDER 15 YEARS . .	72.8

The child population of Bolton is not adequately protected against diphtheria. At least 75% of the total child population should have been completely immunised.

Cases of whooping cough do occur after immunisation, but it is usual for the attack to be mild. The duration of immunity is not yet definitely determined, but it is generally recognised as covering the first five years of life. It was therefore considered advisable to give one additional, or 'booster' dose as soon as possible after the child had started school. This was done by the school medical officers who visited each school in turn when parents were given the opportunity of securing further protection for their children.

In the event of a child being absent when the school medical officer visits the school, arrangements were made for any required immunisation to be carried out at the school clinic.

It is the present practice to offer diphtheria immunisation up to the age of 7 years, and combined diphtheria and whooping cough immunisation up to the age of 6 years.

The preceding tables show that only a small number of children received whooping cough immunisation alone—106 all told. Details are given below.

Children Immunised against Whooping Cough only

Age Group									
	0-1 year	1-2 years	2-3 years	3-4 years	4-5 years	5-6 years	6-7 years	7-8 years	8-9 years
Number . .	3	3	6	10	6	18	29	18	13
TOTAL	106								

This figure includes 12 immunisations carried out by General Practitioners, 6 carried out at Child Welfare Centres and 78 at School.

The progressive totals of diphtheria immunisations carried out over the past ten years give an indication of the great effort which will still be needed in the future to prevent further outbreaks of infection.

Diphtheria Immunisation

The following table shows the number of children immunised during the past twelve years.

Age at date of inoculation	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	TOTAL
Under 1 yr.	8	18	97	54	103	425	756	799	835	698	651	671	0-5 years 6,607
1-2 years	981	1017	844	1253	1121	1037	1115	657	606	670	638	588	
2-3 "	669	281	179	243	171	101	103	124	94	76	100	79	
3-4 "	681	267	75	120	128	67	59	48	72	60	63	43	
4-5 "	753	257	53	68	105	69	75	58	53	46	56	90	
5-6 "	513	206	58	53	54	36	100	114	93	58	164	260	5-10 years 9,380
6-7 "	297	156	23	49	59	17	77	94	83	35	163	249	
7-8 "	269	150	17	41	67	11	33	37	63	21	64	151	
8-9 "	192	137	21	26	57	16	20	26	54	5	32	162	
9-10 "	154	126	14	26	54	20	16	23	43	1	2	26	
10-11 "	130	156	16	23	54	4	5	9	7	2	1	10	10-15 years 7,164
11-12 "	125	171	19	6	43	5	3	—	9	—	—	17	
12-13 "	78	214	21	15	35	2	1	1	2	—	1	10	
13-14 "	117	187	20	16	12	1	—	—	—	—	1	15	
14-15 "	27	69	8	2	2	1	1	—	1	—	—	5	
15 years and over	—	—	3	—	3	18	2	1	2	6	1	2	Over 15 years 4,983
TOTALS	4994	3412	1468	1995	2068	1830	2366	1991	2017	1678	1937	2378	28,134

AMBULANCE

The Ambulance Section continued to supply a full service to the Borough as well as acting as agents for Lancashire County Council in the area of the Turton Urban District Council. The total area covered by the Service is, therefore, some 51 square miles. Additionally, a knock for knock arrangement for areas other than the Turton area was continued with Lancashire County Council. The following tables show the total ambulance mileage and the total number of patients carried during the year.

Total Mileage

	1951	1952	1953
Ambulances	98,296	94,052	79,592
Sitting Case Cars	61,845	59,657	72,928
TOTAL	160,141	153,709	152,520

Total Number of Patients Carried

	1951	1952	1953
Ambulances	28,630	25,365	19,749
Sitting Case Cars	8,596	10,806	17,353
TOTAL	37,226	36,171	37,102
Average mileage per patient ..	4.3	4.25	4.1

Arrangements were made for the long distance transport of 7 patients by railway.

It is important to note that during 1953 there was a significant change in the ratio of sitting case vehicle mileage to stretcher ambulance mileage. While the number of miles run by stretcher case vehicles fell by some 14,500 miles the distance covered by the sitting case vehicles rose by over 13,000 miles. Similarly, 5,600 less patients travelled in stretcher ambulances, and 6,500 more by sitting case vehicles. The main reason for this change-over was the acquisition in March of a new Morris 16 h.p. sitting case vehicle with a coach built body, designed to carry 10 patients and an auxiliary stretcher. During the remaining nine months of the year this vehicle travelled 12,340 miles and carried 6,350 patients. The increased demand for transport for patients—from 36,171 to 37,102—was largely accounted for by the opening of additional out-patient clinics at the Bolton District General Hospital.

The following tables show the monthly mileages run and patients carried, first for the County Borough area, and secondly for the Turton area of the Lancashire County Council.

Bolton Only

MONTH	PATIENTS			MILES		
	Am- bulances	Sitting Case Cars	Total	Am- bulances	Sitting Case Cars	Total
January	1,868	1,230	3,098	6,354	5,444	11,798
February	1,646	1,179	2,825	6,136	5,622	11,758
March	1,788	1,401	3,189	6,635	6,120	12,755
April	1,350	1,127	2,477	5,990	4,209	10,199
May	1,499	1,229	2,728	5,887	4,515	10,402
June	1,505	1,260	2,765	5,602	4,411	10,013
July	1,493	1,397	2,890	5,708	4,961	10,669
August	1,505	1,276	2,781	5,840	4,696	10,536
September	1,509	1,450	2,959	6,013	4,535	10,548
October	1,600	1,619	3,219	5,635	5,138	10,773
November	1,539	1,504	3,043	5,942	5,313	11,255
December	1,534	1,414	2,948	5,775	6,223	11,998
TOTAL	18,836	16,086	34,922	71,517	61,187	132,704

Turton

MONTH	PATIENTS			MILES		
	Am- bulances	Sitting Case Cars	Total	Am- bulances	Sitting Case Cars	Total
January	92	140	232	695	1,551	2,246
February	64	125	189	606	1,196	1,802
March	66	97	163	605	829	1,434
April	72	104	176	716	962	1,678
May	64	105	169	547	933	1,480
June	65	55	120	629	644	1,273
July	57	46	103	539	590	1,129
August	93	95	188	680	1,096	1,776
September	96	132	228	863	1,127	1,990
October	76	149	225	959	922	1,881
November	102	94	196	646	847	1,493
December	66	125	191	590	1,044	1,634
TOTAL ..	913	1,267	2,180	8,075	11,741	19,816

The effect of Radio and Sitting Case Ambulances:

It was necessary to carry 55 patients on journeys of more than 60 miles, and during December alone, 9 patients travelled an average of 147 miles each. If these extraordinary items are removed from the figures for March and December, the average mileage per patient is reduced by about one-third of a mile between these months. There has already been mention of the value of the new sitting case vehicle, and certainly this vehicle has played its part towards reducing the average mileage thus confirming the value of introducing more of these vehicles into the fleet.

As much of the reduction, however, was attributable to the introduction, on an experimental basis, of radio in ambulances. In June, a master station was installed at the Depot and mobile sets were fitted in a stretcher ambulance, the new sitting case vehicle, and a sitting case car. Five additional mobile sets were installed in October, and two in November, so that at the end of the year, 10 vehicles in all carried radio. The build-up of the radio service was, therefore, very gradual and it would not be fair to look for a dramatic change in the picture. Nevertheless, early evidence suggests an increase of efficiency in the Service as a whole. Two examples may perhaps show the way in which radio has benefited the patient:—

An ambulance driver arrived to remove an expectant mother and found that the baby had been born on the floor. Happily the ambulance on that assignment at 3 o'clock in the morning, was a radio-controlled vehicle, and within 15 minutes of the driver's first finding the patient a nurse had been sent for over the radio and had arrived, having been collected from the Bolton District General Hospital and taken to the patient's home.

On another occasion, a patient who had been injured in an accident at Halliwell Terminus was picked up by an ambulance which had been contacted in Church Road. In this way, the patient received medical attention at least 10 minutes before he would have done had radio not been used. Incidentally, there was a saving of 5 miles running in this case.

These examples illustrate the value of radio in emergency, but it is in the routine collection of hospital out-patients that the major saving in mileage can be anticipated. At one stage during the trial when only 3 ambulances were equipped with radio, there was an estimated saving of 11 miles and 65 minutes in an afternoon through the ambulance control being able to make additions to the driver's lists while he was actually on the road.

Technically, there have been no insuperable difficulties in the operation of radio control. It has been found that control by radio was possible throughout the whole of the Service area, and to the Manchester hospitals, to which many Bolton patients were referred. Reception was good over the 12 to 14 miles of urban area which separate the centre of Bolton from the Manchester hospitals, while in the hilly country to the north of the town occasional fading was experienced only in isolated spots which usually lie in hollows.

Emergency Calls:

The tables shown below illustrate the type of emergencies with which the Service is called upon to deal from time to time, and it is particularly important to note the size of the problem caused by accidents in the home.

Bolton District

	Jan	Feb	Mar	Apl	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Patients
ACCIDENTS IN THE HOME:													
Burns	3	2	6	6	4	1	3	1	2	3	2	2	35
Scalds	4	5	11	4	1	1	4	7	6	2	2	6	53
Falls	20	16	24	31	24	28	25	30	28	28	18	28	300
Gas & Electricity													
Mishaps	2	1	4	2	4	1	1	3	7	—	1	1	27
Poisonings	7	2	4	2	3	4	—	7	1	4	3	—	37
Chopping Wood ..	—	—	—	—	—	1	—	1	—	—	—	—	2
Foreign bodies in eye	1	—	—	—	—	—	—	1	2	2	—	—	6
Collision with structures	—	2	—	—	—	—	1	—	1	—	—	1	5
<i>Total of all Accidents in the Home .. .</i>	37	28	49	45	36	36	34	50	47	39	26	38	465
Road Accidents ..	15	16	22	21	30	32	27	25	27	33	36	35	319
Collapse	27	27	19	28	22	22	26	18	24	27	27	36	309
Industrial Accidents	19	17	16	24	22	20	19	29	26	22	22	23	259
Sudden Illness ..	15	7	17	13	18	22	23	16	13	12	14	13	183
Falls in the Street ..	37	9	16	11	13	30	11	18	18	12	17	20	212
Children injured at play (except those included in Accidents in the Home)	15	12	26	29	32	27	31	44	23	23	25	29	316
Violence:													
Fights and Drunks	3	2	3	5	1	5	5	3	4	2	4	9	46
Assault	1	1	—	—	2	3	—	1	2	2	—	—	12
Drowning	—	—	1	3	2	—	—	—	3	—	—	—	9
Hanging	—	—	—	2	1	—	—	—	1	—	—	—	4
Miscellaneous	8	7	7	—	3	—	3	1	2	—	—	1	32
TOTAL EMERGENCIES ..	177	126	176	181	188	197	179	205	190	172	171	204	2,166
MATERNITY CASES ..	137	137	154	134	130	133	143	130	142	129	146	138	1,653
Births in Ambulances	2	2	1	2	—	—	—	1	—	1	—	—	9
Born before arrival of Ambulance	—	—	—	2	—	—	—	—	1	1	—	—	4
TOTAL MATERNITY CASES .. .	139	139	155	138	130	133	143	131	143	131	146	138	1,666
LONG JOURNEYS (60 miles or more) ..	3	5	3	2	4	7	6	4	2	2	6	9	53
TRANSPORT OF MIDWIVES AND GAS AND AIR APPARATUS ..	60	64	79	64	73	76	89	57	73	66	64	86	851

Turton District

	Jan	Feb	Mar	Apl	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Patients
ACCIDENTS IN THE HOME:													
Burns	—	—	—	—	1	—	—	—	—	—	—	—	1
Falls	1	1	2	2	—	1	1	2	2	—	—	2	14
Poisonings	—	—	1	—	—	—	—	—	1	—	—	—	2
Collision with structures	—	—	—	—	—	—	—	1	—	—	—	—	1
<i>Total of all Accidents in the Home .. .</i>	1	1	3	2	1	1	1	3	3	—	—	2	18
Road Accidents ..	—	1	—	—	2	1	2	4	1	2	1	2	16
Collapse	—	1	—	1	—	2	1	1	3	2	—	—	11
Industrial Accidents	—	1	1	—	—	1	1	1	—	1	—	—	6
Sudden Illness ..	1	—	—	—	—	1	—	—	2	1	—	—	5
Falls in the Street ..	—	1	—	1	—	—	—	2	2	—	1	—	7
Children injured at play (except those included in Accidents in the Home)	1	—	2	1	2	1	1	1	2	2	1	1	15
Violence:													
Fights and Drunks	—	—	—	—	1	1	—	—	—	—	1	—	3
Drowning	—	—	—	—	—	—	—	—	—	1	—	—	1
Miscellaneous .. .	—	—	—	—	—	—	—	—	1	—	2	—	3
TOTAL EMERGENCIES	3	5	6	5	6	8	6	12	14	9	6	5	85
TOTAL MATERNITY CASES	10	12	6	9	11	3	8	5	6	4	3	5	82

Colliery Ambulances:

In November, an approach was made to the Authority by the National Coal Board, asking the Authority to explore the possibility of their acting as agents for the National Coal Board, for the provision of an ambulance service to Brackley Colliery. Provision of this service is a duty laid on the National Coal Board by regulations made under the Coal Mines Act, 1911, but the National Coal Board may ask a Local Health Authority to undertake this duty as agents, on the basis of full cost recovery. Agreement was reached and the service for Brackley Colliery began on the 1st January, 1954. The Authority has, for some years, accepted the responsibility for Deane Colliery.

Vehicle Strength at 31st December:

MAKE	H.P.	REG. No.	PURCHASE DATE
AMBULANCES			
Austin	16	CWH 606	20. 4.48
Austin	16	DBN 226	29.10.48
Austin	16	DBN 250	5.11.48
Bedford	26	DBN 287	30.11.48
Commer	14	DBN 386	30.11.48
Austin	16	DBN 444	20.12.48
Austin	16	DBN 555	20. 1.49
Austin	16	DBN 800	6. 4.49
Austin	27	EWB 345	23. 8.51
SITTING CASE AMBULANCE			
Morris	16	FWH 333	13. 3.53
SITTING CASE CARS			
Austin	10	CBN 168	9.12.46
Austin	16	CWH 626	28. 4.48
Austin	16	EBN 355	4.10.50
Austin	16	EWB 111	4. 6.51
Austin	16	EWB 222	6. 6.51

Staff at 31st December:

- Superintendent
- Deputy Superintendent
- 4 Shift Leaders
- 24 Drivers
- 3 Male Attendants
- 2 Female Attendants
- 1 Foreman Motor Mechanic
- 1 Motor Mechanic
- 1 General Labourer

Civil Defence—Ambulance Section:

There were 153 Civil Defence Volunteers attached to the Ambulance Section at the end of the year, of whom 102 had attended a full First Aid Course, 41 had attended a Vehicle Maintenance Course, and 22 were attending for Driving Instruction.

The St. John Ambulance Association undertook the teaching of First Aid and as a result, 29 volunteers now hold the St. John Ambulance Association Certificate. Another volunteer is a fully qualified British Red Cross Instructor.

A comprehensive course of Section Training, to which the 29 Certificate holders and the British Red Cross Instructor were invited, commenced in November. The course consists of lectures on Civil Defence Organisation, Care and Maintenance of Vehicles, Ambulance Loading Drill, Ambulance Depot Organisation and Routine, Map Reading and Damage Control.

Training has been handicapped, to some extent, by the lack of a suitable Civil Defence type of ambulance.

Arrangements for Major Disasters:

Arrangements were made to co-ordinate the Hospital and Ambulance Services in the event of a major disaster in the area. The plans include—

Mutual aid arrangements with neighbouring authorities for the supply of ambulances.

The transport of mobile teams of medical officers and nursing staffs from the hospital to the scene.

Arrangements for co-operation between hospitals to ensure that no hospital receives more casualties than can adequately be treated within a short space of time.

Arrangements for information to be sent by the hospitals to the Ambulance Service concerning the destination of victims.

Arrangements for the feeding of workers at the site of the incident, in conjunction with the Welfare Department.

Although it is difficult to make a detailed plan to meet all eventualities, the smooth co-ordination of the health services involved has been assisted by the formulation of administrative schemes of action.

PREVENTION OF ILLNESS, CARE AND AFTER-CARE

There are many aspects of the work of the Health Department under Section 28 of the National Health Service Act which are not capable of being dealt with in a separate report. These activities are integrally associated with the service concerned, and are described in the sections of the report dealing with these services, such as Tuberculosis, Mental Health and the frequently made references to the co-ordination with other services. Two distinct items, however, need special reference.

Loan of Nursing Equipment:

Articles of nursing equipment were provided free of charge on temporary loan for use by patients in their own homes on the recommendation of District Nurses, Family Doctors or Hospital authorities.

The following loans were effected.

	Number Available 31.12.53	No. Issued during the year	No. in Stock 31.12.53
Bed Pans	89	149	1
Air Rings	120	241	4
Tan Sad Invalid Chairs	16	30	1
Bed Rests	70	103	4
Chair Night Commodes	5	1	0
Blankets (Pairs)	5	0	5
Sheets (Pairs)	3	1	3
Pillow Cases	6	12	0
Crutches (Pairs)	3	4	0
Urine Bottles	40	58	3
Feeding Cups	9	5	4
Pillows (Flock)	6	18	0
Hot Water Bottles	10	1	10
Rubber Sheets	138	240	30
Bed Cradles	5	15	2
Lilo Air Bed	1	1	0
Rubber Slipper Bed Pans	2	4	1
Dunlopillo Mattress (Single Size)	1	1	0
Feather Pillows	24	6	18
Fracture Boards	4	5	0
Male Day and Night Urinals	2	3	0
Biscuit Mattresses	2	2	0
Adult Cot	1	1	0

The Bolton and District Hospital Saturday Committee have a similar scheme for the loan of nursing equipment, otherwise a much larger stock of the various items would be needed.

Paraplegics:

There were six paraplegic cases (males) for whom the Local Health Authority provided home nursing equipment. In some cases, by arrangement with the Welfare Department, slight alterations were made in their homes to doors or walls, to facilitate the easy management of wheel chairs and lifting apparatus. The Health Visitors paid periodic visits to these men and found that nursing arrangements were satisfactory in all cases.

Admission to Convalescent Homes:

Convalescent Home accommodation was arranged for suitable cases to enable them to return more quickly to their former activities after serious illness. Patients were referred by medical practitioners and were seen by members of the Authority's medical staff before arrangements were made in order to decide on the most suitable Homes.

Ten adults and 9 children were accepted by the Local Health Authority for periods varying from two to seven weeks and accommodation was found for 10 adults and 5 children in various Homes. The men (2) were admitted to the Blackburn and District Convalescent Home at St. Annes-on-Sea. The women (8) were admitted to the Blackburn and District Convalescent Home at St. Annes-on-Sea, the Girls' Friendly Society Home at Southport, the Boarbank Hall at Grange-over-Sands, and the Lear Home of Recovery at West Kirby.

The children (5) were admitted to the Children's Convalescent Home at West Kirby, the Ellen Gonner Home at Hoylake, the Ormrod Home at St. Annes-on-Sea, and the Margaret Beavan Home at Heswall.

The applications for three children were withdrawn by parents wishing to make other arrangements. One child who was not accommodated during 1953 was admitted early in January, 1954.

All applicants for convalescence were assessed on the approved scale, and in three cases the Local Health Authority paid the full fees for accommodation. Two patients paid the full cost and the remainder paid a part of the cost.

HOME HELP

Home Helps are provided in cases of emergency, for maternity cases, and for the aged and chronic sick. Family Doctors, National Assistance Board, Welfare Department and Hospitals, in addition to the patients themselves, were all responsible for making requests for this service.

Analysis of Cases assisted by Home Helps:

	Maternity	Tuberculosis	Chronic Sick and Aged	Others	TOTAL
	77	10	673	156	916
New cases included in above . . .	72	6	340	129	547

The total number of cases being served at the year end was 415.

The progressive monthly totals show a tendency to increased use of the service.

MONTH	No. of Cases on the books at beginning of month	New Cases	No. of Cases on the books at end of month
January	369	53	360
February	360	50	364
March	364	62	376
April	376	48	371
May	371	44	373
June	373	39	369
July	369	41	377
August	377	31	378
September	378	35	377
October	377	36	379
November	379	57	405
December	405	51	415

Chronic Sick:

These cases were usually old age pensioners and varied between the ages of 65 and 97 years of age. The totals for the year are shown below.

	Age						TOTAL
	50 and under	51-60	61-70	71-80	81-90	Over 90	
	20	36	151	300	159	7	
Number	20	36	151	300	159	7	673

The number of chronic sick and aged being served at the year end was 374.

Amount of service given in an average week:

The figures have been taken from a representative week but there is a slight variation over the twelve months.

10 patients were in receipt of 1 hour but less than 2 hours per day
 33 " " " " " 2 hours " " " 3 " "
 31 " " " " " 3 " " " " 4 " " "
 18 " " " " " 4 " " " " 5 " " "
 4 " " " " " 5 hours per day
 3 " " " " " more than 5 hours per day

The remaining 261 cases were in receipt of one or more half days per week. Threc confinement cases were in receipt of full-time help during the week.

The average number of cases served per week was 316.

Payment for Service:

The number of patiencts paying in any particular week varied throughout the year, but of the 916 cases assisted, the charges were distributed in the following way:—

	Free of Cost	Part Cost	Full Cost
Tuberculous Cases	6	4	—
Chronic Sick, Aged and Infirm	496	140	37
Maternity	1	51	25
Others	64	47	45
TOTAL	567	242	107

Staff:

The number of Home Helps employed at 31st December, 1953, was:—

Full-time . . 36	} = 3,754 hours per week
Part-time . . 87	

Compared with last year at the same period when 19 full-time and 106 part-time Helps were employed working 3,616 hours per week, there is an increase of 138 available hours of work per week.

The average gross weekly bill was £416 19s. 4d.

The Home Help Organiser was assisted by two full-time Visitors whose duties consisted of visits to patients to determine whether they were in need of either increasing or decreasing amount of service, and also for the purpose of re-assessment of financial circumstances. Visits of this kind also served the purpose of ensuring that patients were being served by the type of help best suited to their needs.

The Assistant Home Help Organiser and one full-time clerk dealt with enquiries from members of the public and assisted in the internal organisation of the service.

Recruitment of Home Helps:

The normal method was to recruit from persons introduced by existing Home Helps, or from suitable persons who applied direct to the Organiser. Personal references were obtained in all cases. Towards the end of the year, this source of recruitment was insufficient to meet the demand for service, or to fill vacancies, and public advertisements were issued.

Two full-time male Home Helps were employed solely for male patients for whom they were able, in many instances, to give a more satisfactory service than was possible from female Helps. It is essential to have male Helps in a social service of this kind.

Home Helps are employed under the National Joint Council scale of pay and Conditions of Service, and those who have to travel on buses were allowed bus fares for travelling to and from work.

Training of Home Helps:

A selected number of Home Helps received training on Wednesday afternoons for approximately twenty-six weeks, at the Women's Institute, given by qualified teachers. The training consisted of first aid in the home, the use of electric and gas

equipment, simple diets and the cooking of meals. After completing this course satisfactorily, Home Helps were issued with a badge to wear on duty.

Five demonstrations of approximately one hour each, were arranged for all suitable Helps at the Electricity Showrooms with the object of demonstrating the use of electrical equipment. Home Helps attended in their own time.

Further courses are to be arranged and it is expected that a sufficient number of Home Helps will be interested to enjoy similar demonstrations of gas equipment at the Gas Showrooms.

Tuberculous Patients:

Special overalls were issued to Home Helps engaged on these cases. Periodical chest X-Rays were offered to all persons undertaking this work. Only volunteers were selected, preferably women over 40 years of age with no young children in their families.

Uniforms:

Two overalls were provided for each Home Help and any Home Help who attended a tuberculous or other infectious case, was provided with extra overalls to be left at the infected home in order to prevent spread of infection.

Uniform overalls will be available during the coming year and should be in use by all Home Helps in the near future.

Assessment:

Each new patient who was unable to pay the standard charge of 2s. 3d. per hour was assessed on his or her income in accordance with the Corporation Scale. When difficulties arose in the application of the Scale, the Organiser brought such cases to the notice of the Appeals Committee when they were considered individually on the merits of the circumstances revealed by enquiry.

All cases were visited approximately every two months and when any change of circumstances arose, they were re-assessed. Old age pensioners rarely have any change in circumstances and are largely included in the cases receiving free service.

Priority of Service:

There were no patients on a specific waiting list and any new cases could always be dealt with promptly and service given the following day, or in very urgent circumstances, on the same day.

Occasionally, when Home Helps were off work through sickness or through illness of relations, there were cases to whom Help had temporarily to be suspended. These were the least urgent cases as no patients were left who were unable to prepare their own meals or attend to other essential matters. Patients who required the services of a Home Help for cleaning only were temporarily left without Help under these circumstances.

Supervision:

Each new patient was visited by the Organiser or Visitor who assessed the need for service. In unusual cases where extra help was necessary, visits were paid each week. Normally, however, each case receiving help was visited at intervals of not more than six to eight weeks.

Co-operation with Home Nurses:

Where possible, assistance was organised in such a way as to help the Home Nurse, and for this purpose, close liaison was maintained with the Superintendent of the Home Nursing Service.

MENTAL HEALTH

The co-ordination of all matters relating to the mental health of the community was delegated by the Health Committee to the After-Care and Mental Health Sub-Committee consisting of the Mayor, the Chairman and Vice-Chairman of the Health Committee and nine members of the Health Committee.

The Medical Officer of Health was responsible for the service and a report of the work accomplished was presented by him to the Sub-Committee which met at regular monthly intervals.

No Medical Officers were employed by the Council for the specific purpose of mental health work and the day to day administration of the service was undertaken by the Deputy Medical Officer of Health who was assisted by two Duly Authorised Officers.

The Mental Health Service continued to work in close liaison with the Regional Hospital Board and Hospital Management Committees, on whose behalf we arranged to obtain case histories, reports on home social circumstances and the supervision of cases discharged from hospital. The hospitals for mental defectives made use of this service frequently and in all cases, information was freely interchangeable.

Section 28 of the National Health Service Act, 1946, empowered Local Health Authorities to create a Care and After-Care service for patients who were suffering, or had suffered, from mental illness and considerable assistance was given to those persons coming within the scope of this section. Many patients have been assisted who might otherwise have been admitted to hospital, and after-care has been given to those discharged from hospital or on licence. This assistance, guidance and advice, which members of the staff undertook in their dual role of Mental Health Worker-Duly Authorised Officer, was largely carried out by visiting the patients in their own homes. It was in the home that the first contact was made by the Mental Health Worker with the patient and his family. This first visit was of the greatest value towards obtaining the confidence of all concerned, as well as the details of the social background which were important for case record purposes, and for a full assessment of the case, with the object of introducing the patient to the appropriate statutory or voluntary agency likely to be of most assistance.

The arrangements made in previous years for periodic meetings between the Consultant Psychiatrist and the Mental Health Worker were continued. They served the dual purpose of assisting the officers in their understanding of modern conceptions of mental illness, and of the discussion of individual cases. Often as a result of such discussions, the officers were able to supply the Psychiatrist with details of the home circumstances of patients, and frequently, personal contact was made with those requiring assistance before they reached an advanced stage of mental illness requiring certification. Thirty such meetings took place during the year. Considerable assistance has been given to the department by the medical staffs of nearby Mental Hospitals and Mental Deficiency Institutions, who have freely given advice when requested to do so, and which has frequently resulted in difficult problems being speedily resolved. Supervision was maintained over patients on long licence from Mental Deficiency Institutions and in some instances, help was given in obtaining suitable employment in sheltered occupations. Wages and conditions of work were checked in order to avoid the possibility of exploitation of these cases. Many patients have shown that they were capable of carrying on in regular employment and continued to live a reasonably full and satisfactory home life.

None of these duties was delegated to Voluntary Associations.

One of the Mental Health Workers attended a two-day Refresher Course on Epilepsy, organised by the British Epilepsy Association in Manchester on October 29th and 30th.

The Duly Authorised Officers gave practical instruction to Student Health Visitors on the work of the authorised officer and mental health worker, and the procedure and application of the Lunacy and Mental Deficiency Acts. Six students received tuition during the year.

Summary of Work undertaken in the Community:

UNDER SECTION 28 OF THE NATIONAL HEALTH SERVICE ACT:

There were 104 visits on the following matters:—

Visits in connection with the completion of social histories of patients admitted into mental hospitals	33
Visits made to the homes of patients discharged from mental hospitals and reports made as to their welfare	71

UNDER THE LUNACY AND MENTAL TREATMENT ACTS, 1890-1930:

The Duly Authorised Officers investigated the circumstances of 125 persons who needed treatment for mental disorders, and who were admitted into mental hospitals under the following sections of the Lunacy Act:—

Section 16	8 men	17 women
Section 20	46 men	27 women
Section 21(1)	9 men	18 women

The Bed Bureau, inaugurated by the Regional Hospital Board in November, 1950, continued to play an important part in the selection and distribution of patients, and this has resulted in a much more even allocation of the available hospital accommodation. There was virtually no delay in early admission of acute patients.

The problem of the borderline cases of senile dementia has caused much difficulty and it is essential that further accommodation should be provided for the senile cases who are not suitable for accommodation under the provisions of Part III of the National Assistance Act. Cases of this type continued to be reported and although there were occasions when, owing to a physical disability it was possible to have some patients admitted to a general hospital, the majority needed nursing care separate and apart from either general or mental hospitals. Little could be done for them in the community even with the assistance of Home Helps because many required twenty-four hour attention and the patients' relatives, sometimes residing at a distance, had to be relied upon to give what care and attention they were able.

Voluntary admissions increased steadily. All suitable cases reported were referred to the Regional Psychiatrist who held bi-weekly clinics at each of the two local hospitals. During the year, 192 patients (99 men and 93 women), were admitted into mental hospitals as voluntary patients under Section 1 of the Mental Treatment Act, 1930. In addition, 322 visits were made in connection with the preparation of case notes of persons alleged to be of unsound mind, and 215 interviews with relatives took place at the Health Department. There were 242 men and 319 women receiving treatment in mental hospitals on the 31st December, 1953.

The 273 mental patients listed below ceased to be under care and treatment in hospitals.

AGE GROUP						MALES	FEMALES
Under 20 years	..	..	..	..	..	2	3
20 to 35 years	..	..	..	..	..	29	29
35 to 45 years	..	..	..	..	..	19	32
45 to 55 years	..	..	..	..	..	20	26
55 to 65 years	..	..	..	..	..	25	23
Over 65 years	..	..	..	..	..	30	35
						<u>125</u>	<u>148</u>
CIVIL STATUS						MALES	FEMALES
Married	..	..	..	..	..	70	82
Single	..	..	..	..	..	43	37
Widowed	..	..	..	..	..	12	29
						<u>125</u>	<u>148</u>
LENGTH OF STAY IN HOSPITAL							
Up to 3 months	..	..	..	..	..	85	86
3 months to 6 months	..	..	..	..	..	17	23
6 months to 1 year	..	..	..	..	..	10	13
1 year to 2 years	..	..	..	..	..	2	9
Over 2 years	..	..	..	..	..	11	17
						<u>125</u>	<u>148</u>

UNDER THE MENTAL DEFICIENCY ACTS, 1913-1938:

						UNDER AGE 16		AGE 16 AND OVER	
						M.	F.	M.	F.
PARTICULARS OF CASES REPORTED DURING 1953:									
At school or liable to attend	..	..	..	..	..	8	7	-	-
On leaving special schools	..	..	..	..	..	-	-	2	2
Police or other Courts	..	..	..	..	..	1	-	1	-
Other sources	..	..	..	..	..	1	-	1	3
TOTAL	..	..	..	..	..	<u>10</u>	<u>7</u>	<u>4</u>	<u>5</u>
DISPOSAL OF ABOVE CASES:									
Placed under supervision	..	..	..	..	..	7	6	3	4
Removed to institutions	..	..	..	..	..	2	1	1	1
Action not yet taken	..	..	..	..	..	1	-	-	-
TOTAL	..	..	..	..	..	<u>10</u>	<u>7</u>	<u>4</u>	<u>5</u>

The homes of mental defectives under Statutory and Voluntary supervision were visited on 242 occasions and reports were made on the general care and home conditions.

The following visits were made at the request of the Medical Superintendents of Mental Deficiency Institutions:—

Visits to the homes of mental defectives who were being considered for holiday and short licence	48
Visits in connection with progress reports of mental defectives who were on long licence from institutions.. .. .	16
Visits on home circumstances on behalf of patients who were about to be seen by the Statutory Visitors for the purpose of recertification in accordance with the requirements of Section 11 of the Mental Deficiency Acts	60

On the 31st December, 1953, the number of mental defectives found subject to be dealt with who were under some form of supervision in the community, including those on licence from institutions, was 155. The number of mental defectives under care in institutions and places of safety was 196, making a total of 351.

Details of defectives subject to be dealt with

	UNDER AGE 16		AGE 16 AND OVER		TOTAL
	M.	F.	M.	F.	
Under Statutory Supervision	19	15	50	57	141
Under Guardianship.. ..	—	—	1	1	2
In 'Place of Safety'	—	1	—	—	1
In Institutions	10	12	87	86	195
On Licence from Institutions	—	—	5	—	5
Under Voluntary Supervision.. ..	1	—	5	1	7
TOTAL	30	28	148	145	351

The desire of parents to keep a mental defective at home in preference to institutional care was encouraged where possible, and it was worthy of note that none of the patients in the community were neglected or ill-treated. The home supervision and control have been such that during the year, only one patient out of 156 cases has been before a Court.

Classification of mental defectives awaiting vacancies in institutions at the end of the year

	UNDER AGE 16		AGE 16 AND OVER	
	M.	F.	M.	F.
IN URGENT NEED				
Cot and chair cases	-	2	-	-
Ambulant low grade	4	1	-	-
Medium grade	-	-	2	-
High grade	1	-	-	-
NOT IN URGENT NEED				
Cot and chair cases.. .. .	1	1	-	-
Ambulant low grade	1	-	-	-
Medium grade	3	-	-	3
High grade	-	-	1	2
TOTAL	10	4	3	5

The position regarding accommodation in institutions for mental defectives showed no improvement and was still far from satisfactory. Great difficulty was experienced in obtaining beds for all classes of patients. Institutional care was most desirable for the above 10 cases listed as "in urgent need".

Occupation Centre:

For some years, attempts have been made to find suitable premises for use as an Occupation Centre for mental defectives, and many buildings have been considered for this purpose but none proved sufficiently satisfactory for adaptation.

During the earlier part of the year, attendances at the day nurseries began to fall off because of an industrial recession, and Cotton Street Nursery was closed. The building seemed eminently suitable, with relatively little adaptation, for use as an Occupation Centre. Accordingly, arrangements were made for the necessary alterations, and a Supervisor was appointed taking up her duties in September to allow sufficient time for her to take charge of the equipping and adapting of the premises. This work was completed by the end of December and the Centre was opened officially on January 19th, 1954, by His Worship the Mayor of Bolton.

The Centre was designed to accommodate 35 mental defectives under the age of 16. The children are transported to and from the Centre by Corporation vehicles following arrangements made with the Transport Department. Collecting and dispersal points were established to serve each area of the town.

The medical inspection of these children is carried out by medical officers of the Health Department staff, each child having an inspection annually. A doctor attends each month to examine a selected number of children and to interview applicants for admission in conjunction with the Supervisor. Dental care and inspection will be given by arrangement with the Priority Dental Service.

The Supervisor visited the homes of the defective children in order to explain the purpose of the training and to establish a satisfactory relationship with the parents.

It is felt that this Centre will serve a long felt need, and will be the beginning of a more efficient service for the care of the mentally defective in the community.

PART III

CONTROL OF INFECTIOUS DISEASES

Notifiable Infectious Diseases

Tuberculosis

Venereal Disease

NOTIFIABLE INFECTIOUS DISEASES

Incidence and Mortality:

The summary given below indicates the number of cases of notifiable disease, other than tuberculosis, that have been notified or otherwise ascertained.

Disease	Total Cases Notified	No. of Cases after Correction
Smallpox	—	—
Scarlet Fever.. .. .	246	246
Diphtheria	12	—
Measles	1,308	1,308
Whooping Cough.. .. .	593	593
Pneumonia	133	—
Acute Primary Pneumonia	85	94
Acute Influenzal Pneumonia	21	21
Meningococcal Infection	7	7
Acute Poliomyelitis	12	3
Acute Polioencephalitis	—	—
Encephalitis Lethargica	—	—
Enteric Fever (including Paratyphoid)	3	2
Dysentery	263	263
Food Poisoning	66	66
Erysipelas	22	22
Puerperal Pyrexia.. .. .	7	7

For the purpose of comparison, the numbers of corrected notifications of notifiable diseases during each of the last ten years, are given:—

	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953
Smallpox	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	410	308	182	229	636	296	149	448	351	246
Diphtheria	142	125	87	18	9	32	20	12	—	—
Measles	1076	1324	239	2082	2360	522	1881	1800	2369	1308
Whooping Cough	214	151	264	231	363	431	583	278	220	593
*Pneumonia	97	92	132	91	125	85	56	214	273	—
„ Acute Primary	—	—	—	—	—	—	—	—	—	94
„ Acute Influenzal	—	—	—	—	—	—	—	—	—	21
†Cerebro-spinal Fever	8	7	5	16	3	2	—	—	—	—
†Meningococcal Infection	—	—	—	—	—	—	3	2	—	7
Acute Poliomyelitis	1	—	2	36	1	9	5	1	8	3
Acute Polioencephalitis	—	—	—	—	—	—	—	—	1	—
Encephalitis Lethargica	—	—	—	—	—	—	—	—	—	—
Enteric Fever (including Paratyphoid)	—	1	1	—	—	6	—	2	1	2
Dysentery	2	5	7	—	4	1	28	294	202	263
Food Poisoning.. .. .	—	—	—	—	—	—	4	46	54	66
Erysipelas	33	43	22	30	48	36	30	24	39	22
Puerperal Pyrexia	9	4	2	7	8	7	3	4	5	7

*The figures prior to 1953 include all forms of Pneumonia

†From 1950 onwards, Cerebro-spinal Fever has been notifiable as 'Meningococcal Infection'.

Trends:

For the second year in succession, no case of diphtheria has occurred in the borough, largely due to the success of the Immunisation Campaign.

A measles epidemic appears to have occurred every two years until 1950, since when there has been a tendency for an annual epidemic. The majority of the cases occurred in children entering school, and since 1951-1953 has been a period in which there was an increase in the number of children entering school for the first time, due to the increase in the birth rate in 1946, 1947 and 1948, there was a consequent increase in the number of susceptible children in the population.

Notifications of poliomyelitis have been fairly constant over the past ten years with the exception of the epidemic of 1947.

The most marked feature of this period has been the increase in the number of cases of dysentery which has taken place in the last three years. It is largely a disease of the winter months, spread generally amongst young children and usually becoming a family infection. The disease, though mild in character, appeared to be highly infectious and there was evidence that some of the strains in Bolton were resistant to treatment with the sulpha group of drugs. There was no doubt that the symptomless carrier was widespread amongst the population, and measures of control were directed principally to the safeguarding of persons engaged in the food trade or those dealing with young children, such as nursery school and day nursery staffs.

Food poisoning has shown a greatly increased incidence since 1950, partly due to better notification of the disease. There were 4 outbreaks, all of which emphasised the fact that there was a great need for more care to be given to personal hygiene by persons engaged in the preparation of food, either at home or in catering establishments.

Notifications of pneumonia are always difficult to interpret. The Regulations require the notification of Acute Primary Pneumonia and Acute Influenzal Pneumonia only. The diagnoses given on the notification forms received during the past year indicated the variety of terms used and are shown in the following table:—

Acute Primary Pneumonia	..	..	..	76
Acute Influenzal Pneumonia	..	..	..	17
Lobar Pneumonia	..	..	..	8
Acute Lobar Pneumonia	..	..	..	1
Broncho Pneumonia	..	..	..	12
Acute Bronchial Pneumonia	..	..	..	1
Acute Pneumonia	..	..	..	21
Primary Pneumonia	..	..	..	9
Influenzal Pneumonia	..	..	..	4
Acute Atypical Pneumonia	..	..	..	1
Acute Pleural Pneumonia	..	..	..	1
Pneumonia	..	..	..	88
TOTAL				239

The above list causes doubt to be expressed concerning the value of pneumonia notifications under present legislation. Neither can the number of cases of pneumonia actually notified be relied upon to indicate the real incidence of the whole group of diseases under this heading, which is certainly much higher than stated above.

Deaths from Infectious Diseases, 1944-1953 inclusive:

	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953
Smallpox	—	—	—	—	—	—	—	—	—	—
Scarlet Fever	—	1	—	—	1	—	—	—	—	—
Diphtheria	5	2	3	3	—	—	1	—	—	—
Measles	5	10	—	3	1	—	1	2	—	3
Whooping Cough	1	3	2	5	2	2	2	—	1	1
All forms of Pneumonia	88	69	85	91	72	64	78	103	74	112
including:										
Acute Primary Pneumonia										36
„ Influenzal „										2
Meningococcal Infection	1	3	2	3	1	1	—	—	—	—
Acute Poliomyelitis	1	—	—	6	—	—	2	—	2	1
Acute Polioencephalitis	—	—	—	—	—	—	—	—	1	—
Encephalitis Lethargica	4	3	4	9	1	3	—	1	1	—
Enteric Fever (including Paratyphoid)	—	—	—	—	—	—	—	—	—	—
Dysentery	1	—	1	—	—	—	—	—	—	—
Diarrhoea and Enteritis										
under 2 years of age	12	8	8	10	6	2	5	5	3	—
Food Poisoning	—	—	—	—	—	—	—	—	—	—
Erysipelas	1	—	—	1	—	—	—	—	—	—
Puerperal Pyrexia	—	—	2	4	—	—	—	—	—	—

There were 112 deaths in which pneumonia in any form, was given as the cause on the death certificate. The details were as follows:—

Broncho Pneumonia	57
Acute Broncho Pneumonia	1
Confluent Pneumonia	1
Terminal Pneumonia	2
Capillary Bronchitis	1
Hypostatic Pneumonia	6
Influenzal Pneumonia	1
Acute Influenzal Pneumonia	1
Acute Primary Pneumonia	3
Lobar Pneumonia	33
Pneumonia	6
TOTAL	112

In view of the difficulty in assessing the deaths as between acute primary and acute influenzal pneumonia, no conclusion on the mortality rates of pneumonic conditions is valid from the information available.

Smallpox:

There were no cases but one Bolton child suffering from whooping cough contracted the disease while a patient in an isolation hospital in a nearby town. The child recovered. Daily surveillance was exercised over the employees of food suppliers, commercial laundries and other contacts in connection with the outbreak affecting this isolation hospital. In the work of tracing suspected contacts, 16 persons were vaccinated by medical officers of the department and more than 200 surveillance visits paid. Particular vigilance was exercised in relation to inmates of common lodging houses and extensive enquiries were made to exclude the possibility of textile wastes being introduced into Bolton from the infected areas in the north-west. Seven persons were examined by the Medical Officer of Health

or his Deputy at the request of family doctors, and the diagnoses were as follows:—

Chicken Pox	3
Papula Urticaria	2
Impetigo	1
Herpes Zoster	1

Scarlet Fever:

There was a reduction in the number of notifications—246 as against 351—in 1952. As in recent years, the cases occurred mainly amongst school children and were extremely mild in character. There were no serious complications amongst the cases admitted to isolation hospital.

Diphtheria:

For the second year in succession, there were no confirmed cases of diphtheria. Twelve notifications were received and all the patients were admitted to the isolation hospital. One case proved to be glandular fever, and the remainder, on bacteriological examination, were found to have sore throats due to other organisms. For the third year in succession, there were no deaths from this disease.

Measles and Whooping Cough:

There was an appreciable fall in the number of cases of measles notified compared with the last three years. There were, however, three deaths from this disease, one due to acute bronchitis following measles, one to bronchial pneumonia and one to capillary bronchitis. All these deaths were in young children.

The number of cases of whooping cough notified—593—was the highest in the last ten years, due to an epidemic in the first few months of the year. One death was reported in a child due to encephalitis following whooping cough.

Meningococcal Infection:

Seven notifications of this condition were received. Six of the patients were admitted to a general hospital, of whom two were found to have meningococcal septicaemia in addition to meningitis. The remaining case was admitted to the isolation hospital. All the patients recovered.

Poliomyelitis and Polioencephalitis:

Twelve notifications of acute poliomyelitis were received but only 3 were confirmed on subsequent investigation. They were a boy aged 4 years with paralysis; a child aged 23 months, and a woman aged 24 years, neither of whom had paralysis. The cases occurred, one each in the months of July, October and November. All three confirmed cases recovered.

Of the remaining 9 notifications, the disease was not confirmed in 5 cases and the patients' symptoms abated without a definite diagnosis having been made. One case had rubella; another, a girl aged 5 years had septicaemia and died; and two others were found to be suffering from infective polyneuritis one of whom, a boy aged 19 years, died. In addition, a man aged 36 whose normal place of residence was in Bolton, was taken ill with poliomyelitis whilst staying at a nearby holiday resort and died in the isolation hospital there. On enquiry, it seems probable that the infection occurred whilst he was staying at this resort.

Each case of poliomyelitis was investigated from the point of view of deciding whether there was any association between the disease and recent injections. No such connection was found.

No cases of acute polioencephalitis were notified.

Post-Infective Encephalitis:

One woman, aged 48, died of infective encephalitis following herpes zoster.

Enteric Fever: (Including Paratyphoid)

One person was admitted to hospital with a provisional diagnosis of typhoid fever but this was not confirmed on subsequent investigation.

There were two cases of paratyphoid fever, both due to salmonella paratyphoid B. The first was a girl aged $2\frac{1}{2}$ years, and although extensive enquiries and investigation were carried out, we failed to discover the source of infection. The second was a boy aged 17 months, whose mother was found to be a symptomless carrier but the original source of infection could not be determined.

A register was kept of all persons known to have suffered at any time from infection with typhoid or paratyphoid and who were periodically tested. At the end of the year there were no persons on this register who were known to be still excreting the organism.

Dysentery:

There was an increase of 61 in the number of cases of dysentery notified or otherwise ascertained compared with 1952. All were due to infection with shigella sonnei. Five outbreaks occurred, four of these in the last quarter of the year.

The first outbreak commenced on the 11th August at a residential institution where 31 children and 3 members of the staff were affected. The outbreak was brought under control by the administration of courses of sulphonamides, followed later by the isolation of all persons with positive stools in a separate block of the premises.

In October, five cases of dysentery occurred in a local hospital. The outbreak started when a child admitted from another hospital was found to have dysentery. This child was transferred to an isolation hospital, but the infection had already spread to another child in the ward and to three members of the ward staff. There were no cases in any other ward in the hospital, and isolation of the affected children, together with exclusion from work of affected staff, prevented further spread.

A large number of cases occurred at a local school. This outbreak commenced on the 29th October and the following persons were found to be affected:—

School Children	..	..	..	45
School Teachers	..	..	..	1
School Meals Servers	..	..	..	2

Although it was not possible to say how the outbreak originated, it was found that a school meals server was amongst the first persons to experience symptoms. School exclusions were not enforced in view of the large number of children affected, and the outbreak was brought under control by treatment arranged through the children's own medical practitioners.

The fourth outbreak commenced on the 23rd November at an industrial day nursery and affected 28 children and 4 staff. The outbreak was brought under control by the exclusion of all children with suspicious symptoms or positive stool samples until they had been proved free from infection.

The final outbreak occurred on the 20th November at a Corporation day nursery; 19 children and 2 members of the staff were affected. The outbreak was controlled by the immediate exclusion of children or staff with suspicious symptoms or positive stools, until proved free from infection.

Food Poisoning:

A further increase in the number of known cases compared with previous years was recorded. The incidences for the past four years illustrate the trend:—

1950	..	..	..	..	4	cases
1951	..	..	..	..	46	„
1952	..	..	..	..	54	„
1953	..	..	..	..	66	„

The 66 cases comprised 28 persons involved in four “outbreaks” and 38 “single cases.”

The first outbreak originated in the district of a neighbouring local authority when, at a family party, a meringue pie prepared from duck eggs infected with salmonella typhi-murium was consumed. It was found that all the persons who consumed the pie became affected, including two Bolton residents.

Two small outbreaks occurring in private households involved 3 and 4 persons respectively and were caused in each case by staphylococcus aureus. In neither case was it possible to ascertain the vehicle or method of infection of the food concerned.

The largest outbreak which occurred in a staff canteen affected 19 out of the 35 persons at risk. All the victims suffered from a mild diarrhoea and 5 also complained of colic but there was no vomiting. The average ingestion-onset period was 15 hours and most of the affected persons had recovered within 12 hours. The food concerned was not identified with certainty, but it is thought to have been either cooked meat or table jelly. The meat had been cooked the previous day, allowed to cool in its container while still in the oven, and then re-heated before serving. The jelly had also been made the day before and had been left in a cupboard to cool. All the food was prepared by a single cook, without any other assistance. Faecal specimens were taken from 17 of the patients and staphylococcus aureus was recovered in 2 cases, one of which was identified as dilute phage—type 55, and the other dilute phage—type 7. The cook had organisms of the same type in her faeces, and a nasal swab yielded staphylococci of the same phage-type. The Public Health Laboratory Service reported that these strains were identical and belonged to Group 3, and could conceivably have formed enterotoxin. It was not possible, however, to recover any pathogens from the small quantities of food left over.

The following organisms were found in faecal specimens from the remaining ‘single’ cases:—

Salm. Ballerup	..	..	..	..	..	1
„ Chester	..	..	..	..	..	1
„ Newport	..	..	..	..	..	2
„ Seftenberg	..	..	..	..	..	1
„ Typhi-murium	..	..	..	..	..	13
<i>Total Salmonellae</i>						18
Cl. welchii	..	..	..	..	..	8
Staph. aureus	..	..	..	..	..	3
<i>Total known causes</i>						29
Unknown causes	..	..	..	..	..	9
<i>TOTAL</i>						38

In none of the cases was it found possible to identify the vehicle of infection with any certainty, in spite of careful investigation. At one house, however, where cases of food poisoning by *Salmonella typhi-murium* had occurred and where a severe mouse infestation existed, the organism was recovered from mouse droppings found in the house.

Investigation and Control of Infectious Diseases:

The sanitary inspectors and health visitors carried out the necessary follow-up work for the prevention of the spread of infectious diseases in the following way:—

Routine investigations	584
Surveillance visits	458
Miscellaneous visits	371

TOTAL	<u>1,413</u>
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Pathological Specimens:

A total of 4,517 pathological specimens were collected and subsequently examined at the Department of Pathology of the Bolton Royal Infirmary. Stool samples were taken from the entire household in almost every case of dysentery, food poisoning and gastro-enteritis. In the Corporation's own day nurseries, all staff or children with loose stools were excluded immediately, and stool samples examined before they were permitted to return. Where provisional diagnoses of diphtheria had been made, nose and throat swabs were taken from each member of the household, whilst in the case of scarlet fever notifications, nose and throat swabs were taken from all food handlers or other persons whose occupations might have offered exceptional opportunities for spreading infection.

The following table shows the numbers and types of specimens examined, and the results obtained.

Specimens	Examination for	Positive	Negative	Total taken
Stools	Sh. sonnei	644	2,107	2,751
"	Salm. typhi	—	36	36
"	Salm. paratyphi B	2	71	73
"	Salmonellae (Others)	65	181	246
"	Cl. Welchii	17	19	36
"	Staphylococci	15	24	39
"	"Food Poisoning Organisms" ..	*	140	140
"	"Routine Stool Examination" ..	*	864	864
Total Stool Samples		743 (18%)	3,442 (82%)	4,185
Throat Swabs	C. diphtheriae	—	68	68
Nose "	"	—	59	59
Throat "	B-haemolytic Streptococci	8	97	105
Nose "	"	3	91	94
Throat "	Staphylococci	—	1	1
Nose "	"	—	1	1
Throat "	N. Meningitidis	—	4	4
Total Nose and Throat Swabs ..		11 (3%)	321 (97%)	332
TOTAL SPECIMENS		754 (17%)	3,763 (83%)	4,517

* "Positives" included under the appropriate organism.

Control of Persons whose occupations might spread infection:

Food handlers notified by their doctors as suffering from, or having positive stool specimens for any form of intestinal infection, were excluded from employment. This was achieved in every case by voluntary arrangement. In the case of food handlers who were contacts, every effort was made to secure exclusion on a voluntary basis, or their transfer temporarily, to duties not involving the handling of food. The necessary advice on food hygiene and personal cleanliness was given by the sanitary inspectors. Generally speaking, effective co-operation was achieved with both employers and employees.

Where necessary, certificates were given in accordance with the Unemployment and Sickness Benefit Regulations, 1948, which state:—

“A person who is not incapable of work shall, if an insurance officer, a local tribunal, or the Commissioner, as the case may be, so determine, be deemed incapable of work by reason of some specific disease of bodily or mental disablement for any day on which he satisfies the conditions specified, namely . . . that he is excluded from work on the certificate of a medical officer of health of a local authority; and that he is under medical observation by reason of his being a carrier, or having been in contact with a case, of infectious disease.”

A total of 4 certificates were completed for this purpose.

School and Day Nursery staffs found to be infected were excluded from employment until they and their families were proved free from infection.

The table below shows the number of persons to whom special attention was directed in view of their occupations.

Category	Examinations for				TOTAL
	Sonne Dysentery	Other Intestinal Infections	Scarlet Fever	Diphtheria	
FOOD HANDLERS					
Positive	7	2	2	—	11
Negative	39	7	32	2	80
NURSERY STAFFS					
Positive	10	1	—	—	11
Negative	31	7	1	—	39
HOSPITAL STAFFS					
Positive	4	2	—	—	6
Negative	2	6	—	1	9
SCHOOL STAFFS					
Positive	4	—	—	—	4
Negative	4	—	4	—	8
DOMESTIC HELPS					
Positive	—	—	—	—	—
Negative	2	3	—	—	5
TOTAL	103	28	39	3	173

Many thanks are due to the staff of the Pathological Laboratory at the Bolton Royal Infirmary for their excellent co-operation and for the interest shown in the

problem of prevention of infection. Much of the work of investigation and control could not have been done without this valuable assistance.

The Public Health (Infectious Diseases) Regulations, 1953:

The Regulations which became operative on the 1st April, 1953, permitted the Authority to authorise the Medical Officer of Health to require persons engaged in occupations connected with the preparation of food or drink, to refrain from the work if suffering from, or shown to be carriers of typhoid, paratyphoid or other salmonella infection, or dysentery or staphylococcal infection likely to cause food poisoning.

The Medical Officer of Health was authorised by the Authority to issue notices and to take action when necessary, but during the year no cases arose in which it was necessary to use these powers.

TUBERCULOSIS

Dr. J. B. Mitchell, Consultant Chest Physician, and Dr. D. A. Woodeson, Senior Chest Physician, have kindly supplied the following information.

The number of new cases notified was 96 compared with 127 in 1952. Eighty-four of the new cases were respiratory, and 12 were non-respiratory.

Notifications:

AGE AND SEX DISTRIBUTION OF NOTIFIED CASES:

Respiratory Tuberculosis

Age in Years	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 Up- wards	Total No. of Cases
Males	—	4	2	1	5	6	7	10	9	4	4	52
Females . . .	—	2	1	1	3	7	8	5	2	2	1	32
TOTAL . . .	—	6	3	2	8	13	15	15	11	6	5	84

Non-Respiratory Tuberculosis

Age in Years	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 Up- wards	Total No. of Cases
Males	—	1	1	—	—	—	—	—	2	—	—	4
Females . . .	—	1	—	—	—	1	5	1	—	—	—	8
TOTAL . . .	—	2	1	—	—	1	5	1	2	—	—	12

Deaths:

Twenty-four persons were certified as having died from tuberculosis compared with forty-seven in 1952. Fourteen of the deaths occurred in institutions.

The age and sex distribution of those who died was as follows:—

Respiratory Tuberculosis Deaths

Age in Years	Under 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 55	55 to 65	65 Upwards	Total No. of Cases
Males	—	—	—	—	1	3	4	2	2	12
Females	—	—	—	—	2	—	1	3	3	9
TOTAL ..	—	—	—	—	3	3	5	5	5	21

Non-Respiratory Tuberculosis Deaths

Age in Years	Under 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 55	55 to 65	65 Upwards	Total No. of Cases
Males	1	—	—	1	—	—	—	—	—	2
Females	—	—	—	—	1	—	—	—	—	1
TOTAL ..	1	—	—	1	1	—	—	—	—	3

Summary of the Work of the Chest Clinic:

The preventive and curative aspects of Tuberculosis are closely linked at the Chest Clinic. A summary of the work completed over the past seven years is given below:—

Year	1947	1948	1949	1950	1951	1952	1953
No. of Cases Notified	142	157	119	105	153	127	96
No. of Deaths	82	70	65	43	48	47	24
No. of Attendances of new cases	657	890	900	901	1,255	1,454	1,144
No. of Cases referred from Miniature Radiography Unit	—	163	31	4	4	148	10
Artificial Pneumothorax and Pneumo Peritoneal refills ..	1,091	1,352	1,414	1,455	1,498	2,351	2,200
No. of Contacts examined ..	77	74	92	151	671	580	438
B.C.G. Vaccinations performed	—	—	—	8	47	52	89
TOTAL ATTENDANCES ..	4,250	4,846	5,152	5,365	6,772	6,298	6,745

It was encouraging to experience a fall in the number of notified cases, and deaths from tuberculosis. The number of cases on the register at 31st December, was 1,099. There were 7 deaths amongst cases which had not been notified, 5 of which were respiratory and 2 non-respiratory. The Tuberculosis Health Visitors made enquiries in these cases and contacts were asked to attend for examinations.

Care and After-Care of the Tuberculous:

The National Health Service Act, 1946, placed the responsibility for diagnosis and treatment of tuberculosis on the Regional Hospital Boards. Meanwhile, the Local Health Authorities were intended to make provision for prevention, care and after-care of persons suffering from illness including tuberculosis.

The Local Health Authority may undertake the responsibility for B.C.G. Vaccination against tuberculosis but must design schemes for the prevention and for after-care of tuberculous persons. This latter could include rehabilitation and the re-education of patients for more suitable occupations, and for the supply of sick room equipment for loan to patients.

Many other activities are necessary such as re-housing, home visiting, and provision of home helps where possible.

A close liaison between the Health Department and the Chest Clinic is essential. The Housing Department, the Labour Exchange, the National Assistance Board and Voluntary Organisations, all play their part in order to ensure continuity of care and after-care of tuberculous patients.

RE-HOUSING:

The Housing Department has given high priority to active or infectious cases. Lists of suitable cases, graded from the medical and social points of view, were supplied monthly to the Housing Director.

	1948	1949	1950	1951	1952	1953
Cases referred to the Housing Director	20	62	37	83	59	71
Cases re-housed	24	45	36	35	37	27

The cases referred for consideration were not all of the highest priority and were not necessarily re-housed in the year of reference.

FINANCIAL ASSISTANCE:

All patients who required financial assistance were referred to the National Assistance Board for maintenance grants. All were given permits for extra foods. Some were referred to the Red Cross or the British Legion for assistance.

LOAN OF SICK ROOM EQUIPMENT:

The Health Department maintained a store of sick room requisites for loan to patients without charge. Items loaned included, crutches, wheel-chairs, Dunlopillo mattresses, bedsteads and mattresses, and bed-rests.

DISTRICT NURSES' VISITS ARRANGED: for 39 patients

These were mostly patients awaiting sanatorium treatment and were placed on streptomycin injections at home meanwhile.

HOME HELPS ARRANGED: for 20 patients

HOME VISITS BY TUBERCULOSIS HEALTH VISITORS: 2,923

Three whole-time visitors were employed by the Local Health Authority who recovered 4/11ths of the salaries from the Hospital Management Committee in respect of the work done in the Chest Clinic in diagnostic and treatment sessions.

ARRANGEMENTS FOR CHILDREN TO ENTER RESIDENTIAL NURSERIES: . . . 29 cases

Children were admitted either because a parent was in a sanatorium or for segregation during B.C.G. vaccination.

B.C.G. VACCINATION COMPLETED: 89 cases

This protection against the risk of tuberculous infection was offered to certain child contacts of known cases.

CONTACT EXAMINATIONS: 438

Every effort was made to persuade all contacts of known cases to attend at least for X-Ray examination, whether children or adults, home or work contacts. A special clinic for this purpose was started in July, 1951.

REHABILITATION:

Much of the after-care work was carried on in the Chest Clinic in the course of clinic sessions. In addition, many patients who were fit for light work were referred to the Ministry of Labour and National Service with recommendations (on form D.P. 1(X)) and every few months, as need arose, the Disablement Rehabilitation Officer interviewed a few patients, together with the Chest Physician, in an effort to find suitable light employment. Some have been sent for training in a more suitable occupation. Patients have been admitted to Papworth Colony (Cambridge) and Barrowmore Hall (Cheshire) and partly maintained by the Local Authority until able to support themselves in the industries there. Some have been found employment in a Remploy Factory in Bolton.

Stabilised cases, who were non-infectious to their fellow workers and able to work under sheltered working conditions, were registered under the Disabled Persons Employment Act, as having a partial disablement.

A number of nurses who had been patients, were found employment in neighbouring sanatoria where they worked in hygienic conditions under medical supervision.

The after-care work was steadily expanded; it is difficult to assess much of this work in terms of statistics, but though notification figures remain fairly constant—probably because fewer cases go undetected—mortality figures show a satisfactory downward trend.

Future Developments:

In the forthcoming year, the work of rehabilitation will be further extended by the setting up of a joint panel consisting of members of the staff of the Chest Clinic and the Health Department, to consider all the social aspects of needy cases, including rehousing.

Vaccination against tuberculosis will also be extended to include school children in their last year at school.

Mass Radiography—1952:

Dr. D. C. Lindars, the Medical Director of No. 4 Mass Radiography Unit of the Manchester Regional Hospital Board, has supplied the following information on the Survey carried out in 1952, and is an amplification of the brief outline given in last year's report.

A Mass Miniature Radiography Survey was carried out in Bolton from the 1st February, 1952, to the 19th September, 1952, and a total of 28,731 persons were X-rayed. This was the second Survey to be held in Bolton the previous one

being in 1948 when 27,324 were examined. However, figures for the two Surveys are hardly comparable, as on the first occasion a static Unit was used and the surrounding districts, including Farnworth, were covered.

Firms in Bolton were invited to co-operate in the Survey and 23 factory groups were visited.

The Medical Officer of Health arranged for the Unit to use premises at the Robert Galloway Clinic, Flash Street, and here workers in the town centre, school leavers and the general public were catered for. An appointments' bureau in the Civic Centre received over 3,000 requests for examination.

At the time of the Survey there was much unemployment in the textile and associated industries which made up the bulk of the potential examinees for Mass Radiography. Several firms declined to co-operate in view of the prevailing situation and others, although willing, had great difficulty in doing so. On occasions the Unit visited Mills on a pre-arranged date to find all or a proportion of the employees "laid off." Another difficulty arose from the fact that many pieceworkers who were working only two or three days a week were reluctant to take time off for an X-ray examination. One firm, employing mainly pieceworkers, encouraged them to attend special sessions at Flash Street and refunded 'bus fares from home to Unit and return.

The average response from firms was 56% and in view of the circumstances this was considered as good as might have been expected.

The incidence of active respiratory tuberculosis was at the rate of 1.5% and is comparable with that found in neighbouring districts.

It is suggested that a future Survey might be carried out by two or perhaps three Units working together and a static Unit in the town centre would then be able to offer examinations without appointment. This would, it is felt, greatly increase the response from housewives and other groups not easily organised.

The results of the Survey are set out in the following tables.

Miniature films taken

TABLE I

	Males	Females	Total
No. of Works employees and Staff, etc., x-rayed	12,532	8,056	20,588
No. of Bolton Corporation employees and Staff x-rayed	1,329	531	1,860
No. of Bolton Hospital Management Committee Staff and employees x-rayed	304	927	1,231
No. of School Leavers x-rayed	684	666	1,350
No. of patients referred by General Practitioners	96	107	203
No. of Individuals x-rayed	1,349	2,150	3,499
	16,294	12,437	28,731

Age groups of persons examined by Mass Radiography

TABLE II

	Males	Females	Total
Under 15 years of age	618	629	1,247
15-24 years of age	2,480	3,685	6,165
25-34 „ „ „	4,274	2,770	7,044
35-44 „ „ „	3,769	2,425	6,194
45-59 „ „ „	4,319	2,595	6,914
60 years of age and over	834	333	1,167
TOTALS	16,294	12,437	28,731

Numbers Recalled

TABLE III

	Males	Females	Total
No. of persons recalled for large film	391	278	669
No. of persons recalled for interview or clinical examination by Medical Director	189	143	332

Of the 28,731 persons examined,

27,126 or 94.41% were regarded as normal,

1,238 or 4.31% showed abnormalities which were regarded as non-tuberculous (See Table IV),

324 or 1.128% were found to have evidence of inactive respiratory tuberculosis (See Table V),

43 or .149% were found to be suffering from active respiratory tuberculosis (See Tables V and VI).

Classification and disposal of non-tuberculous abnormalities

TABLE IV

Abnormality	Males	Females	Total	Disposal
Congenital abnormality of bony thorax and lungs.. . . .	134	138	272	No further action
Chronic bronchitis and emphysema	148	108	256	7 for further investigation
Pneumonia (non-tuberculous).. . .	1	—	1	1 " " "
Consolidation—atelectasis	—	1	1	1 " " "
Consolidation—collapsed lobe.. . .	1	—	1	1 " " "
Bronchiectasis	22	12	34	9 " " "
Pulmonary fibrosis	54	7	61	7 " " "
Pneumoconiosis.. . . .	22	—	22	6 " " "
Basal fibrosis	81	35	116	2 " " "
Pleural thickening	40	17	57	8 " " "
Intra-thoracic new growth	10	6	16	10 " " "
Cardio-vascular lesion—congenital..	2	4	6	No further action
Cardio-vascular lesion—acquired . .	184	177	361	48 for further investigation
Elevated diaphragm	14	4	18	No further action
Foreign body	5	—	5	" " "
Gun shot wound	1	—	1	" " "
Shrapnel wound	1	—	1	" " "
Old fractured ribs	2	—	2	" " "
Old fractured left clavicle	1	—	1	" " "
Old empyema scar	3	1	4	" " "
Dextro-cardia	1	1	2	" " "
	727	511	1,238	

Classification and disposal of tuberculous abnormalities

TABLE V

	Males	Fe- males	Total	Rate per 1,000	Disposal
Inactive primary respiratory tuberculosis	82	45	127	4.42	3 Supervision at Chest Clinic 13 Observation at Chest Clinic 1 Referred own doctor 110 No further action
Inactive post-primary respiratory tuberculosis..	121	76	197	6.86	23 Supervision at Chest Clinic 43 Observation at Chest Clinic 5 Failed to attend Chest Clinic 6 Referred own doctor 120 No further action
Active primary respiratory tuberculosis	—	1	1	.03	} See Table VI
Active post-primary respiratory tuberculosis..	27	15	42	1.46	

Disposal of the cases of active respiratory tuberculosis

TABLE VI

	Admitted Sanatorium	Placed under Chest Clinic Supervision	Failed to attend Chest Clinic	Already on Chest Clinic Register
MALES				
Sputum positive ..	16	1	—	1
Sputum negative ..	4	3	2	—
FEMALES				
Sputum positive ..	11	1	—	—
Sputum negative ..	—	4	—	—

Mass Radiography—1953:

No Mass Radiography Surveys were carried out, and it was necessary to send any cases needing this service to the nearest Units which were in Salford and Rochdale.

In the course of the organisation of the Health Exhibition, it was arranged for a Unit to actively participate in the Exhibition and to X-ray any visitors who asked for this service. Although the arrangements were made during 1953, the Unit did not function until January 1954 for the Exhibition week only. However, 4,213 people were X-rayed and the results of this work will be reported as part of the activities of 1954.

VENEREAL DISEASE

Dr. Philip S. Silver, Medical Director of the Bolton Diagnostic Clinic, has supplied the following information, for which I am grateful.

The most interesting change which has taken place is the almost complete disappearance of early syphilis from the Bolton area. In 1948, out of a total number of 113 cases of syphilis, 80 were early syphilis and 24 were late. In 1953, out of a total of 48 cases of syphilis, 3 were early and 35 were late. The reason for the apparent increase in late syphilitics was an improvement in the follow up of contacts and the gradually increasing number of routine Wassermann blood tests performed. Of the 29 cases referred for advice from the Ante-Natal Clinics, 7 were found to be suffering from syphilis. The saving in ill health and cost to the National Health Service by the discovery of these cases, quite apart from the personal tragedies that are averted, prove beyond doubt the value of routine Ante-Natal blood tests at the clinics.

The number of new cases of Venereal Disease occurring each year from 1944 to 1953 inclusive, in persons resident in Bolton and who attended for treatment at the Diagnostic Clinic, were as follows:—

	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953
Syphilis	93	121	151	162	113	97	93	44	58	48
Gonorrhoea	159	205	237	125	102	104	77	80	64	50
Other Conditions	384	458	473	390	463	449	481	405	334	316
TOTAL	636	784	861	677	678	650	651	529	456	414

There were 23 cases referred from Superannuation Examinations, School Health Service, Children's Department and Moral Welfare organisations, and all were found to have non-venereal conditions or were completely negative.

Four cases from the Bolton area defaulted under treatment for syphilis, but these were offset by ten cases who had previously defaulted and were persuaded to re-attend by follow up letters and visits from the Clinic staff. The members of the Clinic staff carried out more than 200 domiciliary visits for the purpose of ascertaining the cause of non-attendance, and for persuading re-attendance at the Clinic.

Another most noticeable change which has taken place is in the 1 : 1 ratio of gonorrhoea to syphilis. In pre-war years, there were usually four cases of gonorrhoea to every one of syphilis attending the Clinics in this country. Since about 1948, the figures have been equal in number in most Clinics.

Notices of the times of attendance at the Diagnostic Clinic which appear in Corporation public conveniences, might well be displayed also in public conveniences attached to public houses and railway stations in the area, with good effect.

PART IV

ENVIRONMENTAL HYGIENE

Work of the Sanitary Inspector

Housing

Air Pollution

Inspection and Supervision of Food

General Sanitation

Disinfection and Disinfestation

The Work of the Borough Analyst

Statistical Tables

WORK OF THE SANITARY INSPECTOR

Staff:

The Chief Sanitary Inspector took up duties on the 4th May, 1953, the post having been vacant since the 6th January, 1953. He was assisted in his duties by a Deputy Chief Sanitary Inspector.

Five Specialist Sanitary Inspectors were engaged on smoke abatement, housing and slum clearance, and the inspection of meat and other foods.

Twelve District Sanitary Inspectors were provided for in the establishment but in common with other local authorities, at no time had the total been filled and at the end of the year, there were vacancies for six District Sanitary Inspectors which had the effect of causing considerable disorganisation of routine work in this section.

There were, in addition, two full-time Pupil Sanitary Inspectors, but this number will be increased under the new establishment to six pupils in the forthcoming year.

Complaints:

A total of 3,373 complaints were received and investigated. A summary is given below.

NATURE OF COMPLAINT	NUMBER RECEIVED
Housing defects	1,121
Choked and defective drains	391
Accumulations of offensive matter	35
Relative to unsound food	670
Verminous premises:—	
(a) Bugs.. .. .	62
(b) Rats and mice infestations	775
(c) Beetles and crickets	64
Keeping of animals and poultry	7
Unsatisfactory milk supplies	6
Miscellaneous	142
TOTAL	3,273

Standing Commitments:

Premises Subject to Routine Inspection

TYPE OF ESTABLISHMENT	No. OF PREMISES
Common lodging houses	2
Houses-let-in-lodgings	173
Moveable dwellings	25
Bakehouses	380
Basement bakehouses	6
Fish friers	208
Registered premises S. 14 Food and Drugs Act, 1938 (Food-preparation)	599
Industrial canteens	105
Other catering establishments	95
Miscellaneous food preparing premises	82

TYPE OF ESTABLISHMENT										NO. OF PREMISES
Ice cream premises—manufacture	..	..	..	..	..	..	..	..	..	36
„ „ „ —sale only	..	..	..	..	..	..	..	..	..	504
Meat shops	..	..	..	..	..	..	..	..	..	217
Slaughterhouses (in use)	..	..	..	..	..	..	..	..	..	3
Dairies	..	..	..	..	..	..	..	..	..	9
Milk shops	..	..	..	..	..	..	..	..	..	600
Food shops	..	..	..	..	..	..	..	..	..	1,400
Licensed premises (On-)	..	..	..	..	..	..	..	..	..	280
„ „ (Off-)	..	..	..	..	..	..	..	..	..	173
Food stalls	..	..	..	..	..	..	..	..	..	150
Vehicles—Meat	..	..	..	..	..	..	..	..	..	15
„ —Milk	..	..	..	..	..	..	..	..	..	168
Factories (Mechanical)	..	..	..	..	..	..	..	..	..	2,540
„ (Non-mechanical)	..	..	..	..	..	..	..	..	..	224
Shops	..	..	..	..	..	..	..	..	..	997
Outworkers' premises	..	..	..	..	..	..	..	..	..	80
Factory chimneys	..	..	..	..	..	..	..	..	..	205
Hairdressers' premises	..	..	..	..	..	..	..	..	..	222
Places of entertainment	..	..	..	..	..	..	..	..	..	42
Clubs	..	..	..	..	..	..	..	..	..	30
Offensive trades	..	..	..	..	..	..	..	..	..	14
Knacker's yard	..	..	..	..	..	..	..	..	..	1
Registered premises Rag Flock, etc., Act, 1951	..	..	..	..	..	..	..	..	..	14
Pet shops (Pet Animals Act, 1951)	..	..	..	..	..	..	..	..	..	14

Detection of Sanitary Defects:

Summary of Visits and Inspections

NATURE OF VISIT										NO. OF VISITS
Dwelling-houses for housing defects under Public Health Act:—										
(a) After complaint	..	..	..	..	..	..	..	..	..	1,907
(b) Subsequent visits	..	..	..	..	..	..	..	..	..	7,229
Dwelling-houses under Housing Act:—										
(a) After complaint	..	..	..	..	..	..	..	..	..	143
(b) Subsequent visits	..	..	..	..	..	..	..	..	..	623
Infected dwelling-houses:—										
(a) After notified infectious disease (other than tuberculosis)	..	..	..	..	..	..	..	..	..	558
(b) Contacts	..	..	..	..	..	..	..	..	..	829
(c) Fumigations after infectious disease	..	..	..	..	..	..	..	..	..	—
Schools and Church Halls	..	..	..	..	..	..	..	..	..	—
Swimming baths	..	..	..	..	..	..	..	..	..	—
Water Sampling:—										
(a) Swimming baths	..	..	..	..	..	..	..	..	..	—
(b) Dwelling-houses	..	..	..	..	..	..	..	..	..	136
Business premises	..	..	..	..	..	..	..	..	..	63
Cinemas, Dance Halls, Billiard Halls	..	..	..	..	..	..	..	..	..	28
Offensive trade premises	..	..	..	..	..	..	..	..	..	11
Stables, Piggeries, Keeping of animals	..	..	..	..	..	..	..	..	..	127
Houses-let-in-lodgings	..	..	..	..	..	..	..	..	..	183
Factories Acts, 1937 and 1948:—										
Factories with mechanical power	..	..	..	..	..	..	..	..	..	521
Factories without mechanical power	..	..	..	..	..	..	..	..	..	17
Outworkers' premises	..	..	..	..	..	..	..	..	..	21

Notices Served:

Administrative action was taken to secure abatement of nuisances and to enforce the appropriate statutory enactments as follows:—

Subject of Notice	Public Health Act	Food and Drugs Act, Sections 13 & 14 and Food Handling Byelaws	Factories Acts 1937 and 1948	Byelaws: Hairdressers, Houses-let-in-lodgings, Miscellaneous
Number of informal notices served	1939	258	109	324
Number of informal notices complied with	657	224	106	324
Number of statutory notices served	1018	—	—	—
Number of statutory notices complied with	816	—	—	—
Number of cautionary letters sent by Town Clerk ..	448	—	—	—

Housing Defects and Legal Proceedings:

A summary of general housing defects or disrepair of property where it was necessary to take legal proceedings, and the results of such proceedings, are given below.

CASE No.	STATUTE	DETAILS OF CONTRAVENTION	RESULT
1	Public Health Act, 1936—Section 93	Abatement notice in respect of defective roof and plastering	Nuisance Order made against owner and costs of 13/6 imposed
2	Housing Act, 1936—Section 155	Outstanding operative Demolition Order	An Order for Possession against the tenant was granted
3	Houses-let-in-lodgings Byelaws	Abatement notice in respect of defective plasterwork, inadequate water supplies and other general defects	Nuisance Order made against owner and a fine of £10 imposed
4	Public Health Act, 1936—Section 93	Abatement notices in respect of perished wall and ceiling plaster and rotted window frame	Nuisance Orders in respect of two houses made against owner and costs of 21/- imposed
5	Public Health Act, 1936—Section 93	Abatement notice in respect of missing and perished wall and ceiling plaster and defective window frame	Nuisance Order made against agents
6	Public Health Act, 1936—Section 93	Abatement notice in respect of defective house roof and perished plaster	Nuisance Order made against owners
7	Public Health Act, 1936—Section 93, 5	Failure to comply with Nuisance Order	Fine of £10 imposed on owner
8	Public Health Act, 1936—Sections 39 and 93	Statutory and abatement notices in respect of defective house roofs, water closet seat and eavesgutters, etc.	Nuisance Orders in respect of three houses made against owner and fines and costs of £1 7s. 6d. imposed

CASE No.	STATUTE	DETAILS OF CONTRAVENTION	RESULT
9	Public Health Act, 1936— Section 93/5	Failure to comply with Nuisance Order in respect of defective house roof and plastering	Fine of 10/- imposed on owner
10	Public Health Act, 1936— Section 93	Abatement notices in respect of leaking roof and defective plasterwork	Nuisance orders in respect of two houses made against owner and costs of 21/- imposed
11	Public Health Act, 1936— Sections 93 and 39	Abatement and Statutory notices in respect of defective stair treads and eavesgutters	Nuisance Order made and a fine of £2 2s. imposed on owner
12	Public Health Act, 1936— Section 93	Abatement notices in respect of leaking roofs and defective brickwork	Nuisance Orders made against owner in respect of three houses
13	Public Health Act, 1936— Section 93	Abatement notice in respect of loose and sagging ceiling and defective floor	Nuisance Orders made against owner in respect of two houses
14	Public Health Act, 1936— Sections 93 and 39	Abatement and statutory notices in respect of leaking roof, defective plastering and eavesgutters	Nuisance Orders made against owner in respect of two houses
15	Public Health Act, 1936— Section 93	Abatement notice in respect of defective plasterwork	Nuisance Order made against owner
16	Public Health Act, 1936— Section 93	Abatement notices in respect of defective plasterwork	Nuisance Orders made against owner in respect of two houses
17	Public Health Act, 1936— Section 93	Abatement notices in respect of defective house roofs and miscellaneous other defects	Nuisance Orders made against owner in respect of two houses
18	Public Health Act, 1936— Sections 39 and 93	Abatement and statutory notices in respect of leaking eavesgutters and sundry other defects	Nuisance Order made against owner and fine of £2 2s. imposed for failure to repair an eavesgutter
19	Public Health Act, 1936— Section 44	Failure to provide proper sanitary accommodation	Fine of £1 imposed on owner/occupiers
20	Public Health Act, 1936— Section 39	Statutory notice in respect of defective eavesgutter	Fine of £1 imposed on owner
21	Public Health Act, 1936— Section 93	Abatement notice in respect of accumulations of rubbish	Nuisance Order made against owner requiring him to remove certain accumulations in the yard and inside the house

Sanitary Improvements Effected:

Action was taken under either the Public Health Act or the Housing Acts.

NATURE OF IMPROVEMENT	No. OF IMPROVEMENTS
Floors repaired	71
Internal walls repaired	959
Ceilings repaired	519
Doors and windows repaired	680
Stairs repaired	26
Roofs repaired	597
Chimneys and flues repaired	76

NATURE OF IMPROVEMENT	NO. OF IMPROVEMENTS
Eavesgutters repaired	377
Rain water pipes repaired	147
Soil and waste pipes repaired	48
External walls repaired	170
Yards, paths, gates, etc., repaired	36
Sanitary conveniences repaired	367
"Tippler" conversions	94
Refuse accommodation repaired*	62
Drains repaired	330
Fire-ranges repaired	89
Sinks, water supplies, wash boilers, etc., repaired	56
Miscellaneous	219

*i.e., excluding bins provided in connection with
Ashpit Conversion Scheme.

HOUSING

Clearance Areas:

On the 13th April, the Minister of Housing and Local Government gave permission to re-open the inquiry into the Bolton (Derbyshire Row) Compulsory Purchase Order, 1939. This was originally held in 1939 but due to the outbreak of war, it was not confirmed. The inquiry was re-opened on the 10th December.

The area contains 23 houses coloured "pink" and 2 houses, 1 garage and 2 plots of land coloured "grey." Objections were made by the owners of the "grey" properties. The Order has since been confirmed and 53 persons will require rehousing.

The tenants of 6 of the "pink" houses are being afforded priority rehousing on account of the dangerous condition of the premises.

All the houses in the Bolton (Berkeley Road) Compulsory Purchase Order, 1939, were re-inspected with a view to requesting the Minister to re-open the inquiry. After consideration, it was felt that these houses could be left for the present to enable properties in a worse condition to be dealt with first. Action was therefore deferred.

The Bolton (East Ward No. 5) Clearance Area was officially represented to the Health Committee on the 23rd December. This area includes 129 dwelling-houses and 5 combined shop and dwelling-houses. Approximately 325 persons will require rehousing.

No actual demolition or rehousing has yet been effected in connection with the above Orders.

Housing Statistics:

HOUSES NOT INCLUDED IN CLEARANCE AREAS:

Action was taken under the appropriate enactments as follows:—

NEW ACTION:

No. of houses represented under S. 11 of the Housing Act, 1936 ..	82
Demolition Orders made	84
Closing Orders made	8
Undertakings not to re-let for human habitation accepted	29
Undertakings to make fit accepted	1

COMPLETED ACTION:

Houses demolished	60
(Persons re-housed)	195
Houses no longer used for human habitation	24
(Persons re-housed)	47
Closing Order in respect of part of a house	1
Closing Order made in lieu of Demolition Order (Housing Act, 1949)	7
Closing Order made under Local Government (Miscellaneous Provisions) Act, 1953	1
Houses completely reconditioned	1

There were 85 houses which ceased to be used for human habitation and a basement room at one house has also ceased to be used. A total of 242 persons have been rehoused at the request of the Health Department.

One derelict house has been completely reconditioned and subsequently offered for sale.

Another house which was severely damaged by the gales at the end of 1952 has been repaired and made fit for human habitation.

Legal action had to be taken to evict the tenants of two houses subject to Demolition Orders, the tenancies having commenced after formal action had begun.

Housing Inspections:

INSPECTION OF DWELLING-HOUSES

1. (a) Dwelling-houses inspection for housing defects (under Public Health or Housing Acts)	2,050
(b) Inspections made for the purpose	9,902
2. (a) Dwelling-houses (included under sub-head (1) above) which were inspected under the Housing Consolidated Regulations, 1925, as amended by the Housing Consolidated Amendment Regulations, 1932	307
(b) Inspections made for the purpose	436

REPAIRS—INFORMAL ACTION

Number of unfit or defective houses rendered fit as a result of informal action by the Local Authority under the Public Health Act or Housing Acts ..	657
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ACTION UNDER STATUTORY POWERS

PUBLIC HEALTH ACT, 1936

Number of houses in which defects were remedied after service of formal notices:—

(a) by owners	771
(b) by Local Authority in default of owners	45

HOUSING ACT, 1936

Number of houses made fit after service of formal notices (Sections 9, 10, 11 and 16):—

(a) by owners	1
(b) by Local Authority in default of owners	—

Survey of Derelict Houses:

A survey was made of all derelict houses in the Borough. Action has been commenced in cases where the condition of the property was giving rise to nuisance.

As a result, 8 houses have been demolished by the owners, 4 have been bricked up, 1 has been made the subject of a demolition order, and 1 has been purchased and reconditioned. Two are the subject of statutory notices under the Public Health Act, 1936.

AIR POLLUTION

Industrial Smoke:

Bolton is one of the few Corporations possessing powers—Bolton Corporation Act, 1949—regarding the prevention of smoke using the method of “prior approval” for new installations or improvements in industrial boiler house plants.

When information of such proposals was received, manufacturers and industrialists were informed that the proposed installation should be submitted to the Corporation for approval by a special Panel which has been set up for this purpose. The Panel was served by a Consultant Engineer on boiler house practice; the Regional Engineer of the Ministry of Fuel and Power; an Engineer nominated through local industry; the Borough Engineer; the Medical Officer of Health and Chief Sanitary Inspector. A code of requirements has been drawn up by the Panel which states in general terms the circumstances in which proposals will be approved.

During the year, three schemes were submitted for consideration by the Panel.

The proposed installation of 20 sprinkler type mechanical stokers with balanced draught and self-cleaning reciprocating furnace bars at a cotton spinning mill, was satisfactory to the Panel whose recommendation was subsequently approved by the Corporation.

Two applications were later withdrawn to enable consideration to be given to alternatives suggested by the Panel who indicated that they were unable to recommend the original proposals for approval by the Corporation. In one case, there was a risk of grit emission and in the other case, the Panel were not prepared, for certain technical reasons including the resultant increase in cleansing operations, to approve an installation incorporating fixed furnace bars.

All three proposals were received after representations had been made to the firms concerned because of excessive smoke emissions observed from the factory boiler house chimneys.

Smokeless Zone:

Towards the close of the year, the Corporation made an Order under Section 43, Bolton Corporation Act, 1949, declaring an area of approximately 86 acres in the town centre to be a smokeless zone. The following is a statistical analysis of the survey carried out in this zone:—

TYPES OF PREMISES:

Premises contained in the area	1,050
Residential only	162
Business only—office type	242
Business only—shop type	419
Residential and business combined	63
Industrial and manufacturing	76
Other—churches, theatres, etc.	88

FUELS USED IN ABOVE PREMISES:

Premises contained in the area	1,050
Smoke producing fuels used exclusively	291
Smokeless fuels used exclusively (i.e., electricity, gas, high and low temperature coles and anthracite) ..	449
Combination of both types of fuel	291
No heating to premises	19
Proportion of above using smoke producing fuels in part or whole.. .. .	55.4%
Proportion entirely smokeless in operation	44.6%

TYPES OF EXISTING APPLIANCES—NON-INDUSTRIAL:

(1) Permanent (fixed) Space Heaters:—	IN USE	NOT USED
Central heating—coke	236	3
Central heating—gas	9	—
Gas Heaters	609	17
Electric Heaters	400	6
Smokeless solid fuel appliances	15	1
Slow Combustion Stoves	108	4
Open coal fires—grates only	979	793
Open coal fires—cooking ranges	169	8

2,525

TOTALS

(a) Smokeless in use.. .. .	54.5%	1,377
(b) Smoke producing	45.5%	1,148

(2) Auxiliary Space Heaters:—

Electric	611
Gas	44
Oil	17
	672

GRAND TOTAL OF ABOVE (1) AND (2) 3,197

(a) Smokeless in use.. .. .	64.2%	2,049
(b) Smoke producing	35.8%	1,148

(3) Other Fuel Consuming Appliances

Immersion heaters	40
Gas water heaters	170
Electric water heaters	62
Cookers and grillers—gas.. .. .	392
Cookers and grillers—electric	68
Wash-boilers —gas	12
Wash-boilers —electric	7
Wash-boilers —coal fired	14
Incinerators	1

GRAND TOTAL OF (1), (2) AND (3) 3,963

(a) Smokeless in use.. .. .	70.7%	2,800
(b) Smoke producing	29.3%	1,163

INDUSTRIAL APPLIANCES:

IN USE NOT USED

Number of Installations	.. .. .	18
Types (a) Coal fired	.. .. .	9*
(b) Coke fired	.. .. .	7
(c) Oil fired	.. .. .	1
(d) Gas and/or electricity	.. .. .	7

*Include two Vertical Boilers which could be converted to coke-firing.

SOLID FUELS IN USE IN AREA:

Premises	Fuel Tons per Year	
	Smokeless	Smoke Producing
Industrial	1,920	2,390
Non-Industrial	2,710	1,130
TOTAL	4,630	3,520
PERCENTAGE	56.8	43.2

With the addition of non-solid fuels which cannot be readily estimated it will be seen that a very considerable proportion of the heating sources in the town centre is already smokeless.

Prior to the formal declaration of the zone, it was considered advisable to ascertain the position regarding solid smokeless fuels. Upon enquiry, the Minister of Fuel and Power expressed the opinion that under ordinary circumstances, there should be no difficulty in making available the additional quantity of solid smokeless fuel needed to meet the requirements of the proposed zone.

The Order has since been confirmed and will begin to operate as from the 1st November, 1954.

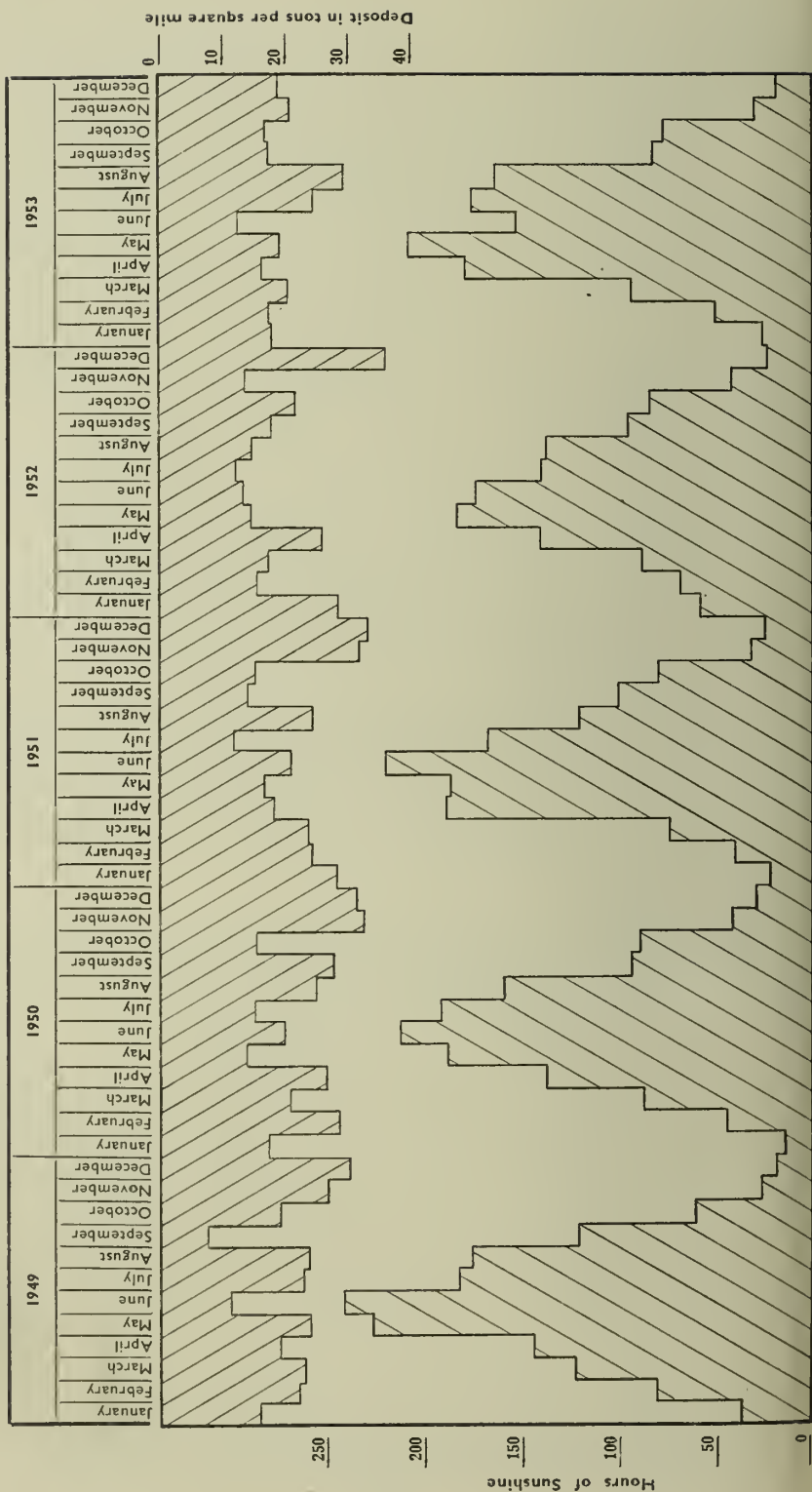
Smoke Observations:

In addition to routine observations of smoke emissions, there were 564 special observations, each of half an hour duration, of individual factory chimneys. The results may be summarised as follows:—

BLACK SMOKE EMISSION		No. OF OBSERVATIONS
Nil	minutes*	
Nil to $\frac{1}{2}$	„	41
$\frac{1}{2}$ to 1	„	36
1 to $1\frac{1}{2}$	„	18
$1\frac{1}{2}$ to 2	„	14
2 to 3	„	21
3 to 4	„	14
4 to 5	„	7
5 to 10	„	11
Over 10	„	4
TOTAL		564

*The byelaw provides that an emission of black smoke for more than two minutes in any period of 30 minutes shall, until the contrary is proved, be deemed to be a "smoke nuisance."

Incidence of Sunshine compared with Atmospheric Pollution in Bolton for the years 1949 - 1953



When the emission of black smoke contravened the byelaw, the person in control of the factory was interviewed and the boiler house was visited to ascertain the cause of the nuisance. Appropriate advice and assistance was given. In 15 cases, there was a previous record of excessive smoke emission having been brought to the notice of the firms concerned and in these instances, statutory notices were served under Section 103, Public Health Act, 1936. There were 34 cases where heavy smoke emissions not infringing the byelaws were noted. These were dealt with by interviewing executives and inspecting the plant and in 13 of them, written notices were served under Section 102, Public Health Act, 1936.

Education of the Public and Boiler House Operatives:

It is important that boiler house operatives should be interested in their work, and the Smoke Inspector has endeavoured to assist by advice on methods of operating plant smokelessly and at the same time, conserving fuel. In addition, for some years, classes in boiler house practice have been held at the Bolton Technical College. There were 13 men enrolled for the session 1953-54, and a further class leading to the City and Guilds Boiler House Operatives Certificate, was inaugurated during the year and attracted an enrolment of 22 persons.

The general public must be made fully conscious of air pollution whether it be as a precursor to the establishment of smokeless zones, or as a measure of economy because of the waste of money on unburnt fuel passing up the chimneys to cause undoubted ill effects to health. In this connection, a tribute must be given to the local press which has identified itself most strongly with the campaign against a filthy atmosphere.

Measurement of Air Pollution:

The Health Department has maintained six standard deposit gauge stations and one volumetric smoke and sulphur dioxide apparatus. Three lead peroxide candle instruments were brought into use on suitable sites on the 1st July, 1953, for the purpose of recording the activity of sulphur dioxide in the atmosphere. Copies of the results obtained were forwarded each month to the Department of Scientific and Industrial Research, and the information is summarised in Tables No'd. 5 to 8 on pages 114 to 117.

Points for Future Consideration:

The establishment of smokeless zones is intended to be a continuous process and it necessarily follows that further areas of the town will later be considered for this purpose. The difficulty formerly encountered concerning the insufficient supplies of solid smokeless fuel would seem to be resolved having regard to the large stocks of coke now known to be accumulated throughout the country.

In some cases, factory managements have installed equipment, after consulting the Prior Approval Panel, but the plant is known not to be completely "smokeless", nevertheless, these plants are working as efficiently as possible and it is contended that the term "smokeless" is an optimistic misnomer for any zone contemplated under such circumstances. Although a considerable reduction of smoke in such an area will be achieved, in practice, the complete abolition of smoke is not likely to be attained throughout the town for many years. There would appear to be a case for renaming these so-called smokeless zones.

It is suggested that the emission of smoke in a prescribed area be permitted within certain carefully defined standards of density. For many years, difficulty has been experienced in enforcing smoke abatement in the absence of a workable definition of smoke. There is a method of measurement, which has certain limitations but which is effective and simple, in the shape of the Ringelmann Chart.

This chart is widely used in the United States of America for measuring visually the consistency of smoke. In use, the chart is placed at eye level about fifty feet from the observer and in line with the chimney under observation. The smoke from the chimney is compared with the chart and the number noted together with the time when the check was made. No smoke is recorded as No. 0 Ringlemann and 100% black smoke as No. 5 Ringlemann. It would seem more practical to secure that chimneys shall not emit smoke of a greater density than say, No. 2 Ringlemann, than to insist on the use of the existing method which requires a completely smokeless emission. The proposal now made would ease the difficulties associated with the ignition of fuel when the danger of smoke emission is obvious. In any revision of the Public Health Act there should be an authoritative definition of smoke preferably by reference to the shade method of measurement.

Criticism is frequently raised when the boundary of a smokeless zone is adjacent to a railway. The extension of electrification of railways in the North of England would be of great value. A further step might be for the Ministry of Fuel and Power to control and investigate cases of smoke emission associated with the railways, because in practice, the existing legislation available for enforcement by local authorities often presents insurmountable difficulties in the proving of a contravention to the satisfaction of the Courts.

Sunshine and Air Pollution in Bolton;

The chart on page No. 90 depicts the incidence of sunshine in relation to atmospheric pollution for the years 1949 to 1953, and indicates the striking association which exists. There is, of course, a seasonal incidence for both smoke pollution and hours of sunshine, but the close inverse relationship between the two is not entirely due to this, and undoubtedly smoke has a great influence in cutting down the amount of available sunshine.

INSPECTION AND SUPERVISION OF FOOD

Milk:

MILK AND DAIRIES REGULATIONS, 1949:

No. of Dairies	9
No. of Milk Shops	634
No. of Dairy Vehicles	163
No. of Milk Purveyors	797

MILK (SPECIAL DESIGNATION) (PASTEURISED AND STERILISED MILK) REGULATIONS, 1949:

The following licences were granted:—

“Pasteurised Milk”—Producers’ Licences	2
“” —Dealers’ Licences	63
“” —Supplementary Licences	1
“Sterilised Milk”—Dealers’ Licences	585
“” —Supplementary Licences	1
“Tuberculin Tested (Pasteurised) Milk”—Dealers’ Licences	51
“” —Supplementary Licences	1
“Tuberculin Tested (Sterilised) Milk”—Dealers’ Licences	—

MILK (SPECIAL DESIGNATION) (RAW MILK) REGULATIONS, 1949:

The following licences were granted:—

“Accredited Milk”—Dealers’ Licences	7
“Tuberculin Tested Milk”—Dealers’ Licences	29
“” —Supplementary Licences	—

DAIRIES AND DAIRY VEHICLES:

	Dairies	Dairy Vehicles
No. of Inspections	195	173
No. of Notices Served	53	10

SAMPLING OF MILK FOR BACTERIOLOGICAL EXAMINATION (DESIGNATED MILK):

The result of samples of milk taken for bacteriological examination are given on page No. 106.

Two samples were found to be unsatisfactory. In both cases the milk was tuberculin tested pasteurised and the samples, taken in May, failed to pass the phosphatase test. In one case, milk was sold by the Milk Marketing Board and the bacteriological report was forwarded to the Medical Officer of Health, Lancashire County Council. In the other case, the milk was sold by a local company whose pasteurisation plant was specially inspected. A defective control valve was discovered which had caused insufficient heat treatment of the milk; after the defect had been remedied, subsequent samples were found to be satisfactory.

BIOLOGICAL SAMPLING OF MILK:

An increased allocation of guinea pigs to the Pathological Laboratory, Bolton Royal Infirmary, enabled 130 samples to be taken for examination for tubercle bacilli as against 91 samples in the previous year. These samples were purchased or taken from farms, dairies and roundsmen in the borough. In two cases, where milk was sampled at farms, the samples were positive and the information was referred to the Ministry of Agriculture Veterinary Service for investigations at the farm. The infected beasts were identified, removed from the herds, and slaughtered.

A further positive sample was taken from milk produced at a farm outside the borough. The Medical Officer of Health, Lancashire County Council and the Divisional Veterinary Officer for the Ministry of Agriculture and Fisheries were notified and subsequently the infected animal was discovered and slaughtered under the Tuberculosis Order, 1938.

BACTERIOLOGICAL EXAMINATION OF MILK VESSELS:

Routine samples of rinses from churns, cans and bottles were taken. The results are given in Table No. 3 on page 113.

A local dairyman was cautioned after bacteriological examination of washed cans and bottles had revealed the presence of free chlorine in traces of hypochlorite cleansing solution left in the containers due to insufficient final rinsing. Where milk vessels were found to be unsatisfactory, advisory visits were made to the dairy concerned and cautionary letters were sent. In all cases, subsequent examinations resulted in satisfactory reports.

MILK DISTRIBUTION:

There has been a marked improvement in the type of dairy vehicles used in Bolton. One large dairy has commenced the use of pedestrian controlled electric vehicles and several others have new motor vehicles of modern design to replace obsolete methods of transport. Wherever possible, persuasion is used, fortified where necessary by service of notices under the Milk and Dairies Regulations, to secure a higher standard in the type of vehicle used in the dairy trade.

SAMPLING OF MILK FOR CHEMICAL ANALYSIS:

Details of sampling are contained in Tables 1 and 2 on pages 110 and 112. Forty-four samples were unsatisfactory. Legal proceedings were instituted in 3 cases as follows:—

	DETAILS	ACTION TAKEN
Case No. 1	5 samples contained extraneous water (7.3% to 10.1%). Two of these samples were also deficient in fat (3.6%—5%).	Fines totalling £50 and £5 5s. 0d. costs imposed.
Case No. 2	5 samples deficient in fat (2%—5.6%).	Fines totalling £10 and £5 5s. 0d. costs.
Case No. 3	7 samples, 6 of which contained extraneous water (3%—16.8%) and were deficient in fat (2%—17.1%). The remaining sample contained added water.	Fines totalling £175 plus £8 8s. 0d. costs. Defendant same as in Case No. 2.

The remaining unsatisfactory samples—twenty-seven—were dealt with administratively by special visits to the farm dairies and inspection of dairy equipment. In all cases, advisory and cautionary letters were sent.

Bacteriological Examination of Ice Cream and Ice Lollies:

Table No. 4 on page 114 analyses the results on 179 samples of ice cream and 24 samples of ice lollies which were submitted for bacteriological examination. Twenty-eight samples of ice cream were also taken for chemical analysis. There were 64 samples reported to be unsatisfactory, according to the provisional bacteriological grading standards of the Sub-Committee of the Public Health Laboratory Service. There are numerous factors governing the hygienic quality of ice cream so that too great an emphasis must not be placed on the bacteriological results of any single sample, and judgment is based rather on a series of samples. Over a six monthly period, not more than 20% of samples should be classified as Grade III and none should be in category IV. Of the ice cream manufactured in Bolton, 2 samples were in Grade IV and of the those manufactured outside Bolton, 19 were in this grade. It is interesting to note that only 1 of the 21 samples in Grade IV was a wrapped ice cream, the remainder were unwrapped. The 2 samples manufactured in Bolton would have been Grade I but for the presence of faecal organisms in one of the samplings.

The Sanitary Inspector attempts to secure improvement by visiting manufacturing premises to advise and investigate defects. Contraventions of the appropriate legislation were the subject of written notices.

Where the unsatisfactory samples were produced outside the borough, the manufacturers were notified, and the public health department concerned was sent a copy of the laboratory report.

A sample of ice cream taken for chemical analysis was 1% deficient in fat. Although manufactured by a cold mix process outside the borough, it had subsequently been reconstituted on premises in Bolton, the proprietor of which was warned; a subsequent sample was satisfactory.

Three samples of ice lollies were bacteriologically unsatisfactory because of an excessive number of organisms and/or the presence of bact. coli of intestinal origin. Two of the samples were from the same vendor and had been manufactured outside the borough. Appropriate warning letters were sent to the retailer and the manufacturers. Details were sent to the appropriate local authority. The remaining unsatisfactory sample was from a local manufacturer. The methods of handling were checked, the premises thoroughly examined and a caution was given.

Inspection of Meat and Other Foods;

For the purpose of the inspection of human food at slaughterhouses, markets, and food shops, 5,866 visits were made by the inspector.

MEAT INSPECTION:

The rate of slaughtering was as follows:—

	Cattle	Calves	Sheep	Pigs	Total
Average Weekly "Kill"	188	69	696	172	1,125
Maximum ,, ,,	397	120	1,360	276	2,153

Slaughtering was carried out in Bolton for an area comprising Bolton, Little Lever, Turton, Horwich, and Westhoughton, representing a population of approximately one-quarter of a million persons.

The following table shows the number of animals slaughtered and inspected at the abattoirs in the borough.

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Total number killed and inspected..	5,089	4,676	3,582	36,205	8,948
All diseases except Tuberculosis: Whole carcasses condemned.. ..	3	2	47	21	14
Carcases of which some part or organ was condemned	456	1,126	—	2,627	17
Percentage of the number inspect- ed affected with disease other than tuberculosis	9.01	24.12	1.31	7.31	0.34
Tuberculosis only: Whole carcasses condemned.. ..	—	111	1	—	30
Carcases of which some part or organ was condemned	90	1,419	—	—	126
Percentage of number inspected affected with tuberculosis ..	1.76	32.69	0.03	—	1.77

Ante-mortem inspection of all food animals was carried out at the Collecting Centre by a Veterinary Officer; post-mortem inspection was performed by Senior Sanitary Inspectors holding special qualifications in Meat Inspection.

CYSTICERCUS BOVIS:

Parts of carcasses and organs were condemned and destroyed in 2 cases of localised infection.

Diseased and Unsound Food Surrendered and Destroyed:

	TONS CWTs. QRS.		
Meat (Fresh)	86	8	1
Meat (Tinned)	1	6	3
Boiled Ham (Tinned)	1	9	1
Fruit and Vegetables (Fresh)	2	10	3
Fruit and Vegetables (Tinned)	5	3	1
Tongue and Corned Beef	1	8	1
Fish (Fresh and Tinned)	—	15	—
Provisions	1	6	—
Milk (Tinned)	1	2	—
Fruit Dried	—	3	3
Poultry	—	—	3
Rabbits	—	2	1
TOTAL	101	16	1

Food and Drugs Sampling for Chemical Examination:

The following samples of foods and drugs were submitted to the Borough Analyst:—

	Genuine	Unsatisfactory	Total
Food Samples	1,046	54	1,100
Drug Samples	41	4	45
TOTAL	1,087	58	1,145

Full details of the above samples are given in Tables No'd. 1 and 2 on pages 110 to 112.

The proportion of unsatisfactory samples during the past five years has been:—

1949	1950	1951	1952	1953
10.4%	5.7%	6.4%	4.7%	5.1%

Food Hygiene:

The numbers and types of food premises together with details of establishments registered under Section 14, Food and Drugs Act, 1938, are shown on page 80.

The number of dairies registered under the Milk and Dairies Regulations, 1949 is given on page No. 92. Particulars of inspections made are detailed on page No. 82.

EDUCATIONAL ACTIVITY:

Lectures including films on food hygiene were given by senior sanitary inspectors to the Civil Defence Welfare Section (Emergency Feeding), the Licensed Victuallers Trade Defence Association and the Methodist Holiday Fellowship.

The Bolton Catering Managers Association of which the Medical Officer of Health is President, organised a public lecture, illustrated by films, on Food Hygiene, given by the Chief Bacteriologist of a firm of detergent and disinfectant manufacturers and which attracted an audience larger than could be accommodated in the Lecture Room of the Art Gallery in the Civic Centre.

In the arrangements for the Health Exhibition, special emphasis was placed on the administration of the Food and Drugs Act. Food hygiene was depicted by the comparison between two wet fish shops, one open-fronted without protection, and the other a modern refrigerated enclosed fish display cabinet with additional coverings of cellophane or plastic for other foodstuffs. The importance of the washing of hands was stressed by a display of gas geyser, wash-basin, clean towel and nail brush. The notice "Now wash your hands before handling food" was printed conspicuously in French, Polish, Maltese and English to embrace the colony of European and Empire workers now resident in Bolton.

Foreign Bodies in Food:

A complaint was investigated regarding a slug found in a pint bottle of pasteurised milk. The circumstances were investigated in the home of the complainant and at the pasteurisation plant. The bottle contained a small quantity of milk, having been opened and used by the customer, but there was no definite evidence as to the manner in which the slug had entered the milk. The case was not considered to justify legal proceedings.

Disposal of Condemned Food:

There is a purpose-built steam digester at the Cleansing Department's premises at Raikes Lane, and all condemned meat from the public abattoir was collected and processed in the digester and subsequently used in the preparation of animal feeding stuffs.

Other foodstuffs condemned in shops and food preparation premises were collected by the staff of the Cleansing Department for destruction.

GENERAL SANITATION

Premises without piped mains water supplies:

A survey of all premises which were not supplied with piped mains water was completed. The survey referred to 45 premises on the Smithills Estate, and 43 other premises. It was necessary to take 137 water samples for bacteriological examination with a view to determining their potability; 103 of the samples were reported "satisfactory" and 34 "unsatisfactory." The premises sampled included 8 in the Corporation owned Smithills Estate but lying outside the borough boundary.

The following table shows the types and location of the premises included in the survey, together with the results of bacteriological examinations of water supplies.

Description of Premises	Results of Bacteriological Samples		
	Satisfactory	Unsatisfactory	Total Premises
Smithills Estate:			
Farms—Dairy	7	5	12
—Others	3	—	3
Houses and Cottages	18	11	29
School	—	1	1
(a) Total—Premises WITHIN Borough ..	28	17	45
Premises OUTSIDE Borough ..	3	5	8
(b) Total—SMITHILLS ESTATE	31	22	53
Not on Smithills Estate:			
Dairy Farms	5	6	11
Houses and cottages	12	20	32
(c) Total—NOT ON SMITHILLS ESTATE ..	17	26	43
TOTAL—(a) + (c) (i.e., EXCLUDING premises OUTSIDE BOROUGH) ..	45	43	88

Statutory notices were served in respect of 5 premises under Section 138 of the Public Health Act, 1936, as amended by Section 30 of the Water Act, 1945. Unsatisfactory findings in respect of premises on the Smithills Estate were referred to the Borough Engineer for action and in the case of Dairy Farms, the results were notified to the Ministry of Agriculture and Fisheries. In all cases where unsatisfactory reports were received, the occupiers were advised to boil the water before consumption.

A tentative scheme for a public mains supply to premises in the Smithills district lying below the 900' contour has been prepared by the Waterworks Engineer and is now being closely studied in the Health Department and other Departments concerned.

Field tests were carried out on a gravity type water filter fitted with self sterilising filter candles which had been loaned to the Corporation for the purpose. The filter was installed in premises served only by a spring supply which previous bacteriological examination had shown to be contaminated with faecal organisms. The apparatus was kept under observation for a period of 4 months and a total of 21 samples of both filtered and unfiltered water was taken. Nineteen of the 21 unfiltered samples contained visible impurities while all the filtered samples were perfectly clear. Plate counts of the unfiltered water varied from 1 to 246 organisms per 1 ml., while those of the filtered water were nil in 15 cases, between 1 and 5 in five cases and 61 in one case. Eleven of the unfiltered samples contained faecal coliform organisms in numbers varying between 1 and 1,600 per 100 mls.; on the other hand, all the filtered samples were completely free from coliform organisms. These results indicate that the apparatus will be of the greatest value at premises which lie above the gravity supply level or which are too distant from a public main to permit of an economic connection, and efforts are to be made to urge its use in all such premises.

Piped Water Supplies:

Employees of the Waterworks Department who undertake duties in direct contact with the water supply are subjected to medical control. All such employees submit for examination one specimen of faeces annually. A total of 39 specimens was examined during the year. New employees submit three specimens on three successive days and, in addition, a specimen of blood for a Widal test. No evidence of typhoid, salmonella or dysentery infection was found in any of the specimens examined.

Mr. H. R. Davenport, Waterworks Engineer and Manager, has supplied the following information:—

The water supply of the area and of its several parts was satisfactory both as regards quality and quantity.

The water supply of the area is filtered at five filter stations. Normally, samples of both the raw and filtered water are subjected to full bacteriological examination each week and to full chemical analysis each month by the Borough Analyst. Special examinations and analyses are made as circumstances require.

During 1953, 250 samples of raw and 251 samples of filtered water received bacteriological examination, and 60 samples of both raw and filtered water received chemical analysis. The results showed that generally filtration and treatment of the raw water were necessary, and that the filtered and treated water was of excellent quality, B.Coli being absent in almost all cases in 100 mls. All water is filtered and treated before passing into supply.

From tests made weekly, the water was shown to have no plumbo-solvent action.

No action was required to be taken in respect of any form of contamination.

The public water mains afforded a direct supply to a population of approximately 166,500 and 55,894 dwelling-houses—no supply was afforded to dwelling-houses by stand-pipes.

Factories Act, 1937:

There were 2,798 factories in Bolton, on which 548 inspections were made, and in 109 cases, written notices were sent to the occupiers. Details of the contraventions found, and improvements secured, are contained in Tables 13 to 16 on pages Nos. 120 to 121.

Houses-let-in-Lodgings:

There were 176 houses registered as being let in lodgings but it is known that there must be others so far undiscovered. There are, in addition, many houses offering accommodation for boarders and which were not able to be classified as houses-let-in-lodgings. It is possible that if and when the proposed Housing Repairs and Rents Bill is enacted, the necessary survey which is contemplated will reveal substantial numbers of houses that should be dealt with as houses-let-in-lodgings although there may be some difficulty, as the byelaws may cease to have effect under the terms of the new legislation now proposed.

Common Lodging Houses:

Thirteen inspections were made at the three registered common lodging houses which provided accommodation for a total of 268 men. Towards the close of the year, it was considered that substantial improvements were necessary at one lodging house, but ultimately, the premises ceased voluntarily to be used for this purpose. The two premises still registered are as follows:—

Salvation Army Hostel, 96-100, St. George's Road.
Church Army Homes, 20, Crompton Street.

Offensive Trades:

There are 7 offensive trades carried on in the borough, comprising:—

1 Tannery
1 Tripe Works
1 Fellmonger
4 Rag Yards

There are no byelaws in force for the regulation of offensive trades and the satisfactory standard of cleanliness and general maintenance at present obtaining does not call for adoption of statutory regulations.

Rag Flock and Other Filling Materials Act, 1951:

The local authority exercises control over the cleanliness of filling materials in certain upholstered articles and the following samples have been taken from firms registered in the borough:—

Rag Flock..	..	..	..	..	8
Coir Fibre	..	..	..	..	4
Feathers	..	..	..	..	1
Kapok	..	..	..	..	1
Cotton Felts	..	..	..	..	3
Hair	..	..	..	..	4
Woollen Felt	..	..	..	..	1
Woollen Mixture Felt	..	..	..	..	2
Cotton Mill Puff	..	..	..	..	1

All the samples were of the required standard of cleanliness as determined by the Act with the exception of one sample of rag flock. The sample contained more than the permitted standard of soluble impurities. The suppliers, the manufacturers, and the local authorities concerned, were notified. A subsequent formal sample proved to be satisfactory.

Samples of cleansed rags were taken regularly at the factory of a local manufacturer, and certificates as to sterilisation were issued. The certificates are necessary to accompany rags sent to certain foreign countries.

Samples of washed rags tested for cleanliness and found satisfactory . .	11
Samples of washed rags tested for cleanliness and found unsatisfactory . .	9
Samples of cleansing materials tested and found satisfactory	2

In those cases where the samples were reported to be unsatisfactory, an investigation of the cleansing process was carried out and advice given. Subsequent samples were satisfactory and certificates of sterilisation were granted.

Pet Animals Act, 1951:

Ninety-eight visits were made to premises in connection with the above Act. Twenty-three premises were licensed. Although it was necessary to give cautions in several instances, a satisfactory standard has been maintained in the registered establishments. It is likely that there are other premises in use which have not yet been reported.

Diseases of Animals Act:

TUBERCULOSIS ORDER, 1938:

Fourteen cows were slaughtered under the above order. Post-mortem examinations resulted in 11 carcasses and organs being totally condemned. Three carcasses were found fit for human consumption.

ANTHRAX ORDER, 1938:

Three cases of suspected anthrax in pigs were investigated. In each case, there was a negative report.

FOWL PEST ORDER, 1936:

Four suspected cases of fowl pest were reported, but proved to be negative on investigation.

SWINE FEVER ORDER, 1938:

The investigation of a report of suspected swine fever amongst pigs produced a negative result.

FOOT AND MOUTH DISEASE ORDER, 1928:

During the month of December, Bolton was included in a foot and mouth disease area. Within this period, 309 licences were either issued or countersigned, controlling the movement of 588 cattle, 126 calves, 1,868 sheep and 608 pigs.

Hairdressing Establishments:

One hundred and forty-eight inspections were carried out, 33 notices were served, and 55 improvements were secured.

Ashpits:

Action for the abolition of fixed ashpits continued, and 650 were abolished by contract at a cost to the Health Committee of £1,360. All the ashpits were disinfected prior to their closure.

Conversion of Waste Water Closets:

The Health Committee made an allocation of 500 grants of £8 each for the financial year commencing 1st April, 1953. The 500 grants were allocated and it was made a condition that the work should be completed by the end of December, 1953. By this time, 419 grants had been paid; the persons whose grants were withdrawn have been registered for future consideration.

Sewage Disposal:

The following information has been supplied by Mr. F. W. Allen, the Sewage Works Manager:—

In January, 1953, work commenced on the removal of the machinery in three of the activated sludge surface aeration tanks for the purpose of installing 42 newly-designed deep high-intensity aeration cones in place of the original shallow ones. One of these tanks containing 14 cones was brought into operation in December, 1953. The second tank is now working and the last tank will be completed by the end of March, 1954. The high-intensity cones are capable of giving 50% more aeration than the shallow ones. These modifications will improve the effluent which does not receive secondary treatment on the nitrifying filters.

Pharmacy & Poisons Act, 1933—The Poisons Rules, 1952:

The number of persons entered in the local authority's list of persons entitled to sell poisons included in Part II of the Poisons List for the year 1st May, 1953 to the 30th April, 1954, was 216.

DISINFECTION AND DISINFESTATION

Disinfection:

Routine terminal disinfection after minor infectious diseases was discontinued except where specially requested by the householder. The work undertaken is given in Table 11 on page No. 118.

Disinfestation:

Particulars of action taken in the destruction of rodents are contained in Table 12 on page No. 119.

The unexpected capture of a weasel was made in a rat-trap which had been placed under the floorboards of a house in Church Street. This is far removed from a country district and it is a matter for speculation as to how the weasel found access to the dwelling-house. The animal is believed to have been trapped accidentally when in chase of its prey, as rats were also trapped in the premises.

There was a heavy infestation of flour beetles (*Tribolium Confusum*) in a factory, where sacks containing graphite had been imported from Ceylon. The insects are cereal-eating and were eradicated by benzene hexachloride powder.

Action taken in relation to insect pests is given in Table 10 on page No. 118.

In addition to regular inspections and treatments for the destruction of rats and mice as required under the Prevention of Damage by Pests Act, 1949, co-operation

has been maintained between the Health Department and the Borough Surveyor's Department regarding destruction of rats in drains and sewers.

The Ministry of Agriculture and Fisheries Infestation Control Division requested that bodies of rats killed with "warfarin" type poison should be sent to them for investigation. Subsequent reports from the Ministry on the specimens confirmed the effectiveness of this poison.

A refresher course for rodent operators in the area was arranged by the Ministry at the Central Library in Bolton.

The disinfection, disinfestation and mortuary services are controlled by a working foreman with a staff of three rodent operatives.

Preparations have been made for enlarging the scope of this section of the Department and it is hoped to carry out research on flies during the summer of 1954. The investigation will continue experiments already made which suggest that special traps with baits possessing selective properties can be used to attract female flies of the blue bottle (*Calliphora erythrocephala*, Meig) and greenbottle (*Lucilia sericata*, Meig) species, in predominant numbers.

These flies are to be seen on the excreta of dogs; in fish shops and on lettuce and vegetables growing in gardens. They occasionally enter houses. The greenbottle species are known to be generally heavily contaminated with potentially dangerous bacteria. In America, it is claimed that the virus of poliomyelitis has been isolated from these flies (Sabin and Ward, 1941).

Mr. E. Hendy, Curator of Museums, has supplied the following information:—

Most of the enquiries concerning health and kindred matters which have been made at the Museum have been with regard to the identification of insects, some proven pests and others of a harmless character. The most frequent occupant of the box or bottle is the Golden Spider Beetle whose brood manages to rear itself on domestic bits and pieces without doing any obvious damage except to the morale of the house proud. Beetles, whose grubs eat into furniture or household timbers, are always with us and it is fortunate, perhaps, that by identifying the insect, it is usually possible to say what damage it is likely to cause and where the centre of infestation may be. Thus, beetles which were thought by their unwilling host to have come in tap water, were identified as coming from a flour bin in an adjacent room. More puzzling was a number of beetles known to feed on bone and hides which were brought in from a cotton mill. Peruvian cotton and hides often come in the same ship, however, and the beetles are unwittingly transferred from one to the other during unloading. Sawfly larvae from dried Polish bilberries failed to elude the eye of the cook of a firm of caterers but a mealworm had got as far as being toasted on one side before detection in a slice of bread. In such a case, identification is important to prevent a recurrence since it showed that the flour, not the bakehouse, was the site of the trouble. It was unfortunate that a slug found in a bottle of milk was in such a state as to be unidentifiable for otherwise, it would have been possible to say whether it was a species found only in fields or gardens or, on the other hand, one of those which delight in dairies and which have been known to wax fat on stolen cream. The first step in fighting a pest is to find out exactly what it is and this is where the museum can be most helpful.

Mortuary:

The mortuary at School Hill forms part of the premises used as a Disinfestation and Disinfection Depot. There is a trained attendant employed on mortuary duties and disinfestation work.

One hundred and nine bodies were accommodated during the year. Post-mortem examinations were carried out on 99; all of them coroner's cases.

Municipal Medical Baths:

A new annexe to the School Hill Depot was erected and opened in July to deal with the cleansing of verminous persons.

The building contains a waiting room and a room equipped with baths and divided into cubicles for the treatment of infested persons.

The cleansing work was performed by a part-time female attendant, or by the Foreman of the Depot in the case of adult males.

A summary of the cases dealt with follows:—

	Schoolchildren		Children under five		Adults	
	Males	Females	Males	Females	Males	Females
Head Infestations	32	154	—	10	—	13
Scabies	2	3	2	3	8	4
Body Lice	—	—	—	—	27	—
	34	157	2	13	35	17
	191		15		52	

THE WORK OF THE BOROUGH ANALYST

Each year, during the past five years, there has been an increase in the total number of samples examined in the Laboratories.

It is generally considered that the main duty of a Public Analyst, is the chemical analysis of the samples of foods and drugs submitted to him by sampling officers appointed under the Food and Drugs Act.

The laboratory staff have, however, a large variety of other investigations to carry out during the course of a year.

Whereas, numerically, the samples of foods and drugs examined has shown only a slight increase year by year, the actual work entailed in their analyses continues to be more exacting in many instances. The introduction of recent enactments has in many cases more than doubled the amount of work necessary to ensure that many foods comply in every respect with modern standards. In addition to increasing the demands on the staff, this also necessitates the purchase of expensive equipment, which in turn also calls for more accommodation.

It is generally accepted that the number of samples to be taken for analysis, under the Food and Drugs Act, each year, should be not less than 3 per 1,000 of population. The number examined in Bolton during the past year has been about 6.8 per 1,000.

It is, however, in the other miscellaneous examinations where the work of the laboratory tends to be of increasing usefulness to the various departments of the Corporation.

Whilst the investigation of the amount of atmospheric pollution does not per se lead to any diminution of the nuisance, the collection of all the possible data concerning the condition of the atmosphere is of paramount importance, for example, in the establishment of smokeless zones.

A larger number of contract samples have been examined for the central purchasing of goods used by the Corporation Departments. By comparison of prices submitted by tender and the chemical composition of the product before the letting of the contract, a considerable saving in expenditure has resulted.

In these laboratories, much importance is attached to the bacteriological aspect of the examination of certain foods and of waters. Bacteriological methods may not readily lend themselves to confirmation by legal standards, nevertheless it is possible, by the use of standardised methods, to reach conclusions which conform with modern enlightened opinions. Such methods are not common to all Public Analyst's Laboratories, but they are invaluable, particularly when used in conjunction with the normal chemical analysis of drinking waters, swimming bath waters, ice creams, milk, etc.

A large proportion of the work was devoted to chemical and bacteriological examinations of waters, and general chemical investigations for the Waterworks Committee. The closest possible co-ordination is maintained with the Waterworks Engineer and his staff, since the purity and treatment of a water supply becomes increasingly the province of the chemist.

A total of 4,444 samples have been examined, classified as follows:—

For the Health Committee:—

Food and Drugs	1,145
Designated Milks	493
Ice Creams for Bacteriological Examination ..	179
Ice Lollies for Bacteriological Examination ..	25
Rinses from Milk bottles and churns.. ..	158
Atmospheric Pollution samples	848
Private water supplies to farms, etc.	137
Swimming-bath waters	90
Fertilisers and Feeding Staffs	16
Contract Samples	68
Miscellaneous examinations.. .. .	69

Analyses for the Waterworks Committee.. .. 1,117

Analyses for other Departments and Authorities .. 99

TOTAL 4,444

The following table shows, by comparison, the increase in the number of samples examined during the past five years.

	1949	1950	1951	1952	1953
No. of Food and Drug samples ..	830	835	1,071	1,078	1,145
Total No. of all samples	2,251	2,577	3,831	4,010	4,444

Samples under the Food and Drugs Acts, 1938 to 1950:

The total number of samples was 1,145, of which 58 were adulterated or otherwise unsatisfactory. The percentage of unsatisfactory samples was equivalent to 5.1%, compared with 4.7% during 1952; this increase is due to a greater number of adulterated samples of milk; 5.4% of the milk samples were adulterated during 1953, whereas only 3.3% were adulterated in 1952.

The particulars of all the samples submitted are listed in Table 1 on page No. 110, and the details of the unsatisfactory samples in Table 2 on page No. 112.

Milk Samples:

The number of samples examined was 817.

The number of adulterated samples (44, equivalent to 5.4%), is the highest since 1949, but 18 of the adulterated samples were from two retailers.

Appeal to Cow samples numbered 24 and are included in the total number examined. Three of these were below 3% in fat content, consequently no further action was taken with the corresponding samples.

Fourteen samples were low in non-fatty solids, but were adjudged to be genuine since their freezing points were within the normal range for genuine milk.

Milk is considered to be genuine if it is sold as it came from the cow. Under the Sale of Milk Regulations, 1939, however, there is a presumptive standard for Milk which is deemed not to be genuine until the contrary is proved, if it contains less than 3% of milk fat, or less than 8.5% of milk solids-not-fat.

It is an offence under the Food and Drugs (Milk, Dairies and Artificial Cream) Act, 1950, to add water to milk, and the presence of extraneous water in milk can be detected by means of the Hortwet Freezing Point Test.

The following table shows the monthly variation in composition of all the milk samples examined, and the average yearly composition for the past five years:—

COMPOSITION OF MILK:

	No. of samples	Fat %	Solids not fat %	Water %
January.. .. .	67	3.57	8.64	87.79
February	75	3.37	8.60	88.03
March	64	3.41	8.60	87.99
April	65	3.35	8.58	88.07
May	66	3.44	8.71	87.85
June	62	3.40	8.83	87.77
July	72	3.46	8.70	87.84
August	59	3.43	8.67	87.90
September	66	3.73	8.91	87.36
October	72	3.79	8.96	87.25
November	73	3.91	8.87	87.21
December	76	3.58	8.73	87.69
Yearly Average:				
1949	655	3.62	8.79	87.59
1950	543	3.59	8.83	87.58
1951	822	3.59	8.76	87.65
1952	755	3.64	8.80	87.56
1953	817	3.54	8.74	87.72

DESIGNATED MILKS:

A total of 493 samples were examined by tests specified in the appropriate Regulations.

Pasteurised Milk and Tuberculin Tested Milk (Pasteurised) are subjected to a phosphatase test and a methylene blue test. An unsatisfactory result in the phosphatase test indicates that the milk has been inadequately heated, or mixed with raw milk. The methylene blue test is a measure of the keeping qualities of the milk and one of the conditions of this test is that samples must be stored in the laboratory at atmospheric shade temperature not exceeding 65°F. It frequently happens, in warm weather, that atmospheric shade temperature exceeds this figure, hence the test is often void at that season of the year when the keeping quality of milk is of great importance. Between May and September on five occasions, a total of 14 Pasteurised Milks and 10 Tuberculin Tested Pasteurised Milks failed to comply with the methylene blue test, but as the atmospheric shade temperature was greater than 65°F, the tests were void. Significantly, on each of these occasions, other samples subjected to the same conditions all satisfied the test.

An unsatisfactory result in the turbidity test applied to sterilised milk also indicates that the milk has been insufficiently heated, or is mixed with raw milk.

Only 2 samples of Tuberculin Tested Pasteurised Milk failed in the prescribed tests:—

DESIGNATION	NUMBER EXAMINED	NUMBER UNSATISFACTORY
Pasteurised	200	0
T.T. Pasteurised	109	2 (2 Phosphatase)
Sterilised	182	0
Accredited	1	0
Raw Milk.. .. .	1	0
	<hr/> 493	<hr/> 2

Included in the above are 92 Pasteurised Milks taken from the normal supply at local schools, and 1 Tuberculin Tested Pasteurised Milk taken at a local Nursery—all of which were satisfactory.

CLEANLINESS OF MILK BOTTLES AND CHURNS:

In order to determine the degree of efficiency in the methods used by local dairymen and dairies for the cleansing of their equipment, bacteriological examinations were carried out by the procedure recommended by the Ministry of Agriculture and Fisheries, on milk bottles, kits and churns. Table 3 on page No. 113.

A milk bottle is considered to be in an unsatisfactory condition when, immediately after washing, it contains more than 600 organisms per bottle; and a churn if it contains more than 250,000 organisms per churn.

Thirty of the 110 milk bottles examined were found to be in an unsatisfactory condition, and 2 of the 51 kits and churns examined were in an unsatisfactory condition at the time of sampling.

In all cases, following the advice given by the sanitary inspectors, subsequent examinations from the same source have shown improvements in the condition of the containers.

Ice Cream and Ice Lollies:

Twenty-eight samples of ice cream have been submitted for chemical examination and only one sample failed to comply with the prescribed composition, containing 4% instead of not less than 5% of fat.

The Minister of Food reduced the standards for fat and milk solids-not-fat in ice cream on the 7th July, 1952, but as from the 1st June, 1953, these standards were restored. Ice cream should now contain not less than 5% fat, $7\frac{1}{2}\%$ milk solids other than fat, and 10% total sugar ($7\frac{1}{2}\%$ being sucrose).

The average composition of the ice-cream samples examined was:-

	Bolton Manufacturers	Outside Manufacturers
Fat %	8.1	10.5
Milk Solids-not-fat %	9.8	9.4
Total Sugars %	14.5	12.9
Sucrose %	11.1	9.3
Total Solids %	33.4	33.8
No. of Samples	24	4

Twenty-four samples of ice lollies were examined for metallic contamination. The samples were free from injurious amounts of poisonous metals (arsenic, copper, lead, tin and zinc), and from prohibited dyes. Eight samples contained the maximum limit of two parts per million of lead, recommended by the Metallic Contamination Committee of the Ministry of Food.

It has been suggested that metallic contamination may be due to the type of mould used in manufacture, but the vessels used for preparing and storing of the liquid prior to freezing are also possible sources of metallic contamination.

The lollies all contained sugar, small amounts of cordial or flavouring, along with a water content varying between 81 and 96 per cent; all were brightly coloured and frozen.

There were 179 samples of ice cream submitted for bacteriological examination. The samples were classified in accordance with the results obtained in the methylene blue test, and tests for the presence of coliform organisms. Under the conditions of the methylene blue test, only those samples of Grade 1 or 2 standards were classified as satisfactory, and the results obtained are summarised in Table 4 on page No. 114.

Private Water Supplies to farms and cottages:

A total of 137 samples of water were submitted by the sanitary inspectors to be examined for their suitability for drinking purposes. These waters all had their sources in private springs or wells and constituted the only existing supply available to local farms and farm cottages. Thirty-four of these waters were classified as unsatisfactory for drinking purposes, having shown evidence of undesirable contamination.

Swimming Bath Waters:

The water in each of the Public Swimming Baths under the control of the Corporation was subjected to a continuous system of treatment and filtration. The water was treated with coagulants, filtered through mechanical filters and chlorinated and the water in the plunges was expected to be of the same high quality, in appearance and purity, as the standards for drinking supply.

Samples are taken from the plunges, during periods of use by bathers, as a check on the methods of treatment and subsequent contamination of the water. Only one out of 90 such samples examined was classified as unsatisfactory in showing evidence of some contamination by bathers, coinciding with a temporary

reduction in chlorine dosage. The remainder of the samples were of a highly satisfactory standard of purity. The value of this control lies in the attention immediately given to any water which may be found to be of an unsatisfactory standard.

Bacteriological Examination of Swimming Bath Waters

	No. of samples examined	No. of a satisfactory bacteriological standard	Excessive numbers of total organisms	Excessive numbers of Bact. Coli.
Bridgeman St. (Males) ..	17	17	—	—
Bridgeman St. (Females) ..	19	18	—	1
Moss St. (Males)	18	18	—	—
Moss St. (Females)	18	18	—	—
High St.	18	18	—	—

Fertilizers and Feeding Stuffs Act:

Samples submitted numbered 16 consisting of 12 Fertilisers and 4 Feeding Stuffs. Of these samples, 5 of the Fertilisers did not agree with the composition declared on the Warranty.

Contract Samples:

An appreciable reduction in expenditure has already resulted from the bulk purchasing of goods in common use amongst the various departments of the Corporation. The services of the laboratory have been utilised in instances where it was possible, by chemical analysis, to compare the composition and purity of the products submitted by contractors.

Submitted under this heading were 68 samples consisting of soaps, soap compounds, disinfectants, etc., and recommendations forwarded to the Medical Officer of Health for the purchase of each type of product, having regard to quality and price.

Atmospheric Pollution:

The investigation of atmospheric pollution has been extended by the erection on July 1st of three instruments for the recording of the activity of sulphur dioxide in the atmosphere. The sites were chosen to represent the Western, Central and Eastern districts, and the purpose of this measurement was to detect monthly changes in emissions. The results are indicative of the effect sulphur gases in the atmosphere have on metals, stonework and paints.

The results of the analyses of the deposit from the gauges show only slight variations at the individual sites, and the average total deposit for the six districts is almost identical with the average result obtained the previous year. Although the slight improvement in the results obtained for 1952 has been maintained, the amounts of total deposit and of insoluble deposit (which represents the more obvious nuisance), are again high, even for an industrial town.

Daily estimations of the concentration of smoke and sulphur dioxide in the atmosphere surrounding the Civic Centre have also been continued. The results show high concentration of smoke and of sulphur dioxide; the monthly average being slightly higher than the corresponding figure for last year, but they are of the same order as those obtained in other industrial towns of a similar size.

Samples of grit have been examined to determine the nature and amount falling on a prescribed area, in order to assist special local investigations.

A summary of the results obtained is given in the Tables Nod. 5 to 8 on pages 114 to 117.

Miscellaneous Examinations:

FOR THE HEALTH DEPARTMENT:

Samples—69 all told—examined for a variety of purposes, consisted of:—

22 cleansed rags (for export); 4 lubricating oils (for viscosity); 3 waters; 3 cellar waters; 9 bath waters (experimental); 2 bloods; 2 meats and 1 spleen (all negative for anthrax); 1 meat (bilirubin); 1 meat (contaminated with dyestuff); 1 powder (contaminating bacon wrappings); 3 canvas (corrosion by SO_2); 2 bread loaves (mineral oil); 2 formalin fumigants; 2 hypochlorite solutions; 2 cleansing powders; 1 soap; 1 insecticide; 1 deposit from rotary washers; 1 detergent; 1 sewage effluent; 1 coal; 1 dried apricots; 1 milk food; 1 canned sardines.

EDUCATION DEPARTMENT AND BOLTON SCHOOL:

38 Swimming bath waters

ATHERTON U.D.C.:

48 Atmospheric Pollution samples

PRIVATE SOURCES:

4 Drugs for Morphine content
1 Nerve Tonic (for Vitamin B)
2 Articles of clothing (seminal stains)
2 Waters
1 Dried Egg Powder
1 Incrustation from metal chimney
1 Flux
1 Lime

Sampling for the Waterworks Committee:

The laboratories are responsible for all the chemical analyses and bacteriological examinations necessary for the efficient control of the treatment and purity of the domestic water supply of the town and surrounding districts, and for this service the Waterworks Committee contributes a large percentage of the running expenses of the laboratories.

By far the greater proportion of the work undertaken is in the examination of water samples, and a total of 1,117 samples were examined, and reports issued, to the Waterworks Engineer. The miscellaneous samples examined have included metals; pipes; deposits from boilers and mains; effluents; flood waters; waters from humidifiers, water tanks and new bore holes.

The raw waters were gathered, almost entirely, from upland surfaces, and required treatment to neutralise acidity, in addition to filtration and chlorination.

The chemical constituents of waters from the various individual sources did not vary appreciably, but chemical analysis of the raw and filtered waters from the main sources of supply were carried out each month, and waters constituting the whole of the domestic supply to the town and district, were examined weekly for bacteriological purity and plumbo-solvency.

The purity of a water supply is judged on the results of a full chemical and bacteriological examination. One of the principal indicators of undesirable pollution is the presence, in significant numbers, of the organism *Bact. Coli*.

A water classified as of a Highly Satisfactory Standard of bacteriological purity should not contain Bact. Coli in 100 mls, and 97% of the samples of the filtered waters examined during the past year from all sources of supply, showed Bact. Coli. to be absent in 100 mls; and only 2 samples were classified as unsatisfactory, due to breakdown of the chlorinating plant.

The water supply has been consistently of a high standard of purity. Bolton is fortunate in possessing a water supply of the highest quality.

EXAMINATION OF WATERS FOR BACT. COLI:

Source of Supply	No. of Samples	Bact. Coli Absent	Probable No. of Bact. Coli per 100 mls.		
			1 to 2	3 to 10	More than 10
Sweetloves Sand Filters	50	50	0	0	0
Sweetloves Pressure Filters	50	48	1	1	0
Heaton Sand Filters	49	47	0	0	2
Ferns Park Pressure Filters	50	47	3	0	0
Springs and Dingle Sand Filters	49	49	0	0	0
Cadshaw	44	44	0	0	0
Daddy Meadows	50	48	1	1	0
Crowthorne	43	40	2	1	0
Thirlmere Supply (at Lostock)	35	35	0	0	0

ENVIRONMENTAL HYGIENE—STATISTICAL TABLES

TABLE 1

Samples of Foods and Drugs Submitted

FOODS:	TOTAL	GENUINE	UNSATISFACTORY
Milk	817	773	44=5.4%
Baking Powder	3	3	—
Beef Dripping	1	1	—
Beef Suet	3	3	—
Beverage	1	1	—
Biscuits	1	1	—
Butter	6	6	—
Canned Fish Paste	1	1	—
Canned Fruit	4	3	1
Canned Soup	2	1	1
Canned Vegetables	2	2	—
Cereals	25	21	4
Cheese	5	5	—
Coffee	2	2	—
Coffee and Chicory Essence	1	1	—
Condensed Milk	1	1	—
Cooking Fat	6	6	—
Crab Meat	2	2	—
Cream	9	9	—
Custard Flavour	1	1	—
Desiccated Cocoanut	5	5	—
Dried Vegetables	2	2	—

Samples of Foods and Drugs Submitted (*continued*)

FOODS:	TOTAL	GENUINE	UNSATISFACTORY
Essence (Dr. Beach's)	1	1	—
Essence of Rennet	1	1	—
Evaporated Milk	1	1	—
Fish Dressing	1	1	—
Flour and Flour Mixture	7	5	2
Food Beverage.. .. .	1	1	—
French Mustard	1	1	—
Fruit Juice	4	4	—
Fruit Pudding	3	3	—
Gelatine	3	3	—
Glacé Cherries.. .. .	1	1	—
Golden Raising Powder	1	1	—
Gravy Salt	1	1	—
Ground Almonds	1	1	—
Home-Brewed Stout Ingredients ..	1	1	—
Honey	1	1	—
Ice Cream	28	27	1
Ice Lollies	24	24	—
Iced Square	1	1	—
Jam and Preserves	7	7	—
Lard	4	4	—
Lemonade Powder	2	2	—
Liquid Fruit Pectin	1	1	—
Margarine.. .. .	4	4	—
Meat Products.. .. .	4	4	—
Nut Mix	1	1	—
Pepper	3	3	—
Pepper Flavoured Compound ..	2	2	—
Potato Crisps	1	1	—
Potted Shrimps	1	1	—
Raisins	1	1	—
Salmon Relish	1	1	—
Sauce	2	2	—
Sausages	31	30	1
Self Raising Flour	3	3	—
Soft Drinks	15	15	—
Spirits	18	18	—
Stuffing and Forcemeat	2	2	—
Sugar	2	2	—
Sugared Cocoanut	2	2	—
Tea	3	3	—
Toffee Apples	1	1	—
Tomato Spread	1	1	—
Vinegar	4	4	—
Whipping Compound	2	2	—
TOTAL FOODS	<u>1,100</u>	<u>1,046</u>	<u>54</u>

Samples of Foods and Drugs Submitted (*continued*)

DRUGS:	TOTAL	GENUINE	UNSATISFACTORY
Aspirin Tablets	4	4	—
Boracic Acid	2	2	—
Boracic Ointment	3	3	—
Borax	3	2	1
Borax and Honey	1	1	—
Caraway Seeds	1	1	—
Castor Oil	1	1	—
Concentrated Peppermint	1	1	—
Cream of Tartar	1	1	—
Friar's Balsam	1	1	—
Fullers Earth Cream	1	1	—
Glycerine	2	2	—
Glycerine and Borax	1	1	—
Head, Nerve and Flu Powder ..	1	—	1
Liquorice Powder	1	1	—
Oil of Eucalyptus	1	1	—
Olive Oil	4	4	—
Olive Oil & Raspberry Vinegar ..	1	1	—
Raspberry Vinegar	1	1	—
Saccharin Tablets	3	3	—
Spirit of Sal Volatile	1	1	—
Sulphur Ointment	2	2	—
Teaseed Oil	1	1	—
Thirst Quenchers	1	—	1
Tincture of Iodine	1	1	—
Yellow Basicon Ointment	1	1	—
Zinc Ointment	2	1	1
Zinc Oxide and Castor Oil Cream ..	2	2	—
TOTAL DRUGS	45	41	4
TOTAL FOOD AND DRUGS ..	1,145	1,087	58=5.1%

TABLE 2

Unsatisfactory Samples of Food and Drugs

MILK	16 samples were deficient in fat (from 2.0 to 17.1%) 20 samples contained extraneous water (from 0.4 to 17.1%) 8 samples contained extraneous water, and were also deficient in fat.
CANNED APPLE PUREE	Contained 470 parts of tin, per million. In a report by the Metallic Contamination Sub-Committee of the Food Standards Committee, it is recommended that the limit for tin in foods should be 250 p.p.m.
CANNED TOMATO SOUP	Contained 473 parts of tin per million.

CEREALS	2 samples of Sago, 1 sample of Flaked Tapioca and 1 sample of Rice were each infested with mites, rendering them unfit for human consumption. The remaining stock was surrendered in each case.
CHOCOLATE COCOANUT CAKE FLOUR	Contained 3.1% of cocoa; whereas in my opinion it should contain not less than 10%. Subsequently withdrawn from sale.
SWEETENED SPONGE MIXTURE	Contained 34.4%, instead of not less than 40% of sugar.
ICE CREAM	Contained 4.0% fat instead of not less than 5.0%, a deficiency of 20%.
PORK SAUSAGE	Contained 195 parts per million of Sulphur Dioxide, its presence not having been declared.
BORAX	Labelled "Powdered Refined Borax", contained 50 parts per million of Arsenic, whereas the limit allowed by the British Pharmacopoeia is not more than 5 parts of arsenic per million.
HEAD, NERVE AND 'FLU' POWDER	Incorrectly labelled, and contained Caffeine instead of Caffeine Citrate.
THIRST QUENCHERS	Contained starch, not included in the list of ingredients (labelling offence only).
ZINC OINTMENT	Contained 18.9% Zinc Oxide. According to the British Pharmacopoeia, Zinc Ointment should contain between 14.0 and 16.0% of Zinc Oxide. There was an excess, therefore of 2.9% of Zinc Oxide.

TABLE 3

Bacteriological Examination of Milk Vessels

Type of Vessel	Total Samples	Satis- factory	Unsatisfactory		
			Plate Count	B. coli	Both
Milk Churns	42	39	—	3	—
Milk Cans	6	6	—	—	—
Milk Bottles	110	80	30	—	—
	158	125	30	3	—

TABLE 4

Bacteriological Examination of Ice Cream and Ice Lollies

	Bolton Manufacturers		Outside Manufacturers	
	Wrapped Ice Cream	Loose Ice Cream	Wrapped Ice Cream	Loose Ice Cream
No. of Samples Grade 1 standard	3	49	12	2
„ „ „ Grade 2 standard	5	26	11	9
„ „ „ Grade 3 standard	2	33	4	2
„ „ „ Grade 4 standard	1	18	0	2
TOTAL	11	126	27	15

In addition, 2 samples were classified as unsatisfactory in containing Bact. Coli of intestinal origin.

25 samples of ice lollies were also examined bacteriologically, and 3 were classified as unsatisfactory in containing excessive numbers of organisms and/or Bact. Coli of intestinal origin.

TABLE 5

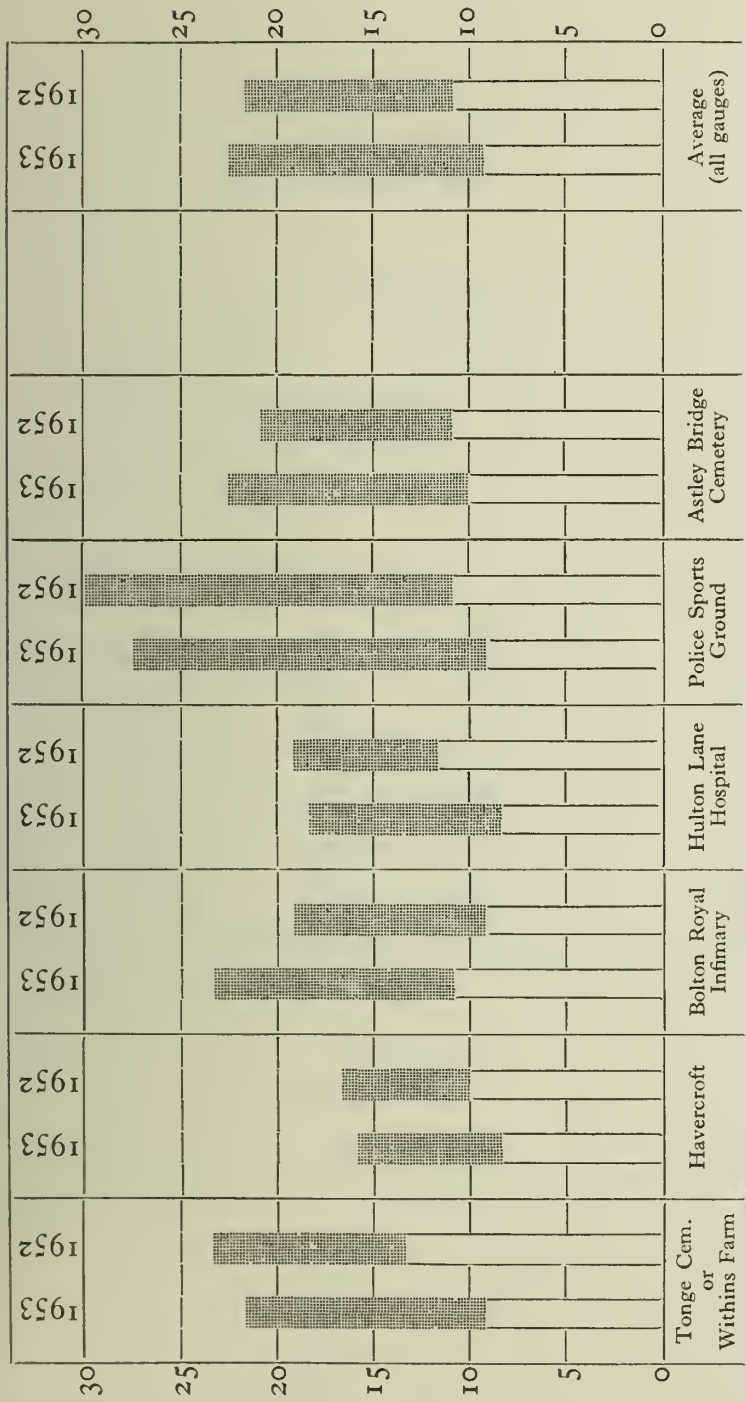
Atmospheric Pollution—Deposit Gauges

Site	Average Total Monthly Deposit (in tons per square mile)				
	1949	1950	1951	1952	1953
Tonge Cemetery/Withins Farm ..	25.4	22.9	25.1	22.7	21.5
Havercroft	9.7	11.9	17.2	16.5	15.5
Royal Infirmary	16.9	21.2	24.4	19.5	23.8
Hulton Lane Hospital	16.3	21.1	21.3	19.1	18.8
Police Sports Ground	35.9	44.9	29.3	30.0	27.4
Astley Bridge Cemetery	23.0	19.9	23.8	20.8	21.9
AVERAGE OF 6 DISTRICTS.. ..	21.2	23.6	23.5	21.4	21.5

TABLE 6

ATMOSPHERIC POLLUTION

AVERAGE MONTHLY DEPOSIT IN TONS PER SQUARE MILE





 Undissolved Solids
 Dissolved Solids

TABLE 7

Atmospheric Pollution

Smoke and Sulphur Dioxide Estimations

	Daily Averages			
	Smoke (mgms. per cubic metre)		Sulphur Dioxide (p.p.m.)	
	1952	1953	1952	1953
January	0.432	0.515	0.113	0.166
February	0.535	0.359	0.115	0.117
March	0.351	0.459	0.100	0.174
April	0.278	0.218	0.085	0.072
May	0.213	0.212	0.066	0.065
June	0.156	0.145	0.048	0.052
July	0.107	0.124	0.044	0.038
August	0.154	0.152	0.058	0.044
September	0.154	0.237	0.053	0.073
October	0.299	0.440	0.092	0.155
November	0.376	0.386	0.115	0.131
December	0.493	0.427	0.160	0.154
MONTHLY AVERAGE	0.296	0.306	0.087	0.103

TABLE 8
Atmospheric Pollution
Daily Average Concentrations for 1953

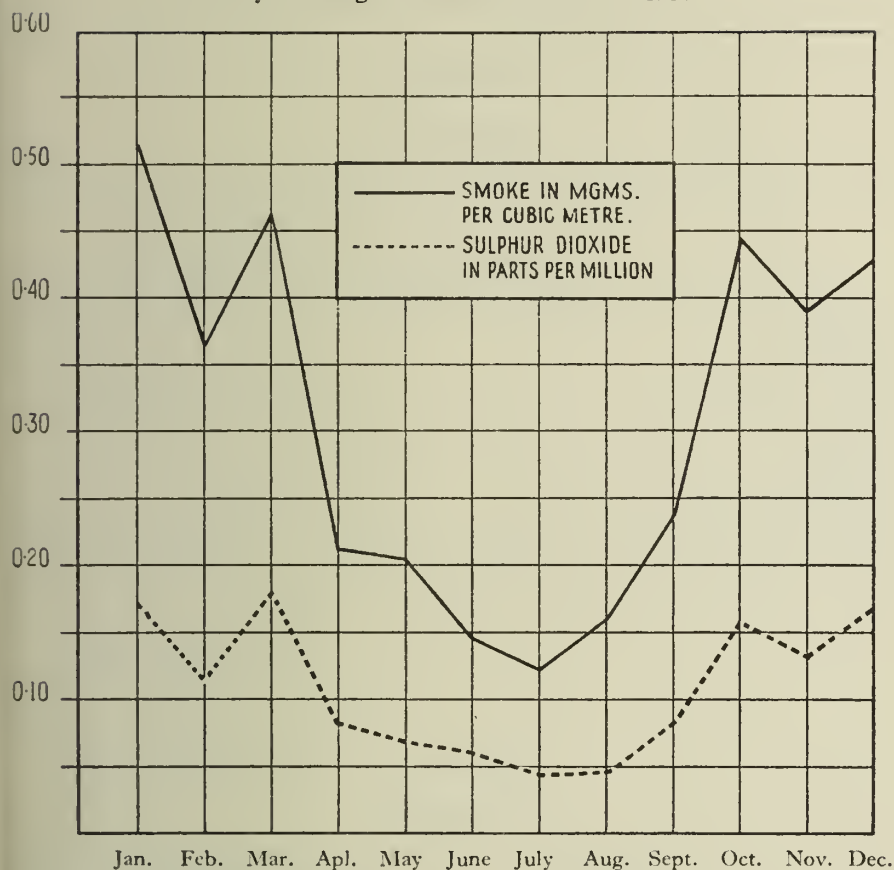


TABLE 9
Atmospheric Pollution
Sulphur Estimation (by Lead Peroxide Method)

	Mgms. of SO ₂ per 100 sq. cms. per day		
	Havercroft	Civic Centre	Withins Farm
July	0.27	0.86	0.83
August	0.66	1.35	1.31
September	1.09	1.80	1.85
October	2.16	3.02	2.80
November	1.85	3.74	3.17
December	2.58	3.15	4.31

TABLE 10
Disinfestation

Infestation by	Number of Premises Disinfested				Total
	Domestic Premises	Business & Industrial	Hospitals	Schools	
Bed Bugs	61	1	—	—	62
Cockroach	64	16	2	2	84
Fleas	20	3	—	2	25
Golden Spider Beetles	4	—	—	—	4
Wasps	4	—	—	—	4
Wood Lice	4	—	—	—	4
Body Lice	1	2	—	—	3
Silver Fish	2	—	—	—	2
House Fly	2	6	—	—	8
General Disinfestation	33	—	—	—	33
Others	5	—	—	—	5

TABLE 11
Disinfection

	Free of Charge	On Payment of Charge	Total
Premises visited for Disinfection	87	20	107
Beds Disinfected	90	25	115
Rooms Disinfected	33	—	33
Articles Disinfected	1,383	150	1,533
Articles Destroyed	11	—	11

TABLE 12
Destruction of Rats and Mice
Prevention of Damage by Pests Act, 1949

	TYPE OF PROPERTY				
	Local Authority	Dwelling Houses	Agricultural	All other (including Business and Industrial)	Total
I. Total number of properties in Local Authority's District.	151	54,065	250	8,500	62,966
II. Number of properties inspected by the Local Authority as a result of (a) notification or (b) otherwise.	(a) 57	511	4	203	775
	(b) 72	104	10	99	285
III. Number of properties (under II) found to be infested with rats.	Major 42	11	5	46	104
	Minor 41	388	1	82	512
IV. Number of properties (under II) found to be seriously infested by mice.	24	146	—	92	262
V. Number of infested properties (under III and IV) treated by Local Authority.	108	528	6	215	857
VI. Number of notices served under Section 4:— (1) Treatment	Nil				
(2) Structural Works (i.e. proofing)	Enforced under Public Health Act, 1936.				
VII. Number of cases in which default action was taken by Local Authority following issue of notice under Section 4.	Nil				
VIII. Legal Proceedings.	Nil				
IX. Systematic control of blocks of buildings	65				

TABLE 13
Factories Act, 1937
Places of Employment
Defects Found

Particulars	Number of cases in which defects were found				Number of cases in which prosecutions were instituted
	Found	Remedied	Referred		
			to H.M. Inspector	by H.M. Inspector	
Want of Cleanliness (S.1)	—	—	—	1	—
Overcrowding (S.2)	—	—	—	—	—
Unreasonable temperature (S.3) ..	—	—	—	—	—
Inadequate ventilation (S.4)	1	1	—	—	—
Ineffective drainage of floors (S.6) ..	—	1	—	—	—
Sanitary Conveniences (S.7):—					
(a) Insufficient	3	3	—	3	—
(b) Unsuitable or defective ..	120	118	—	19	—
(c) Not separate for sexes ..	1	—	—	—	—
Other offences against the Act (not including offences relating to Outwork)	1	—	1	—	—
TOTAL	126	123	1	23	—

TABLE 14
Factories Act, 1937
Outwork (Sections 110 and 111)

Nature of Work	Section 110			Section 111		
	No. of out-workers in Aug. list required by Sect. 110 (1) (c)	No. of cases of default in sending lists to the Council	No. of prosecutions for failure to supply lists	No. of instances of work in unwholesome premises	Notices served	Prosecutions
Wearing (Making etc.) apparel ..	54	—	—	—	—	—
Furniture and Upholstery ..	21	—	—	—	—	—
Brush making ..	4	—	—	—	—	—
Stuffed toys ..	1	—	—	—	—	—
TOTAL ..	80	—	—	—	—	—

TABLE 15

Factories Act, 1937

Places of Employment—Improvements Secured

Cleanliness improved	44
Temperature improved	1
Sanitary Accommodation:—	
Additional accommodation provided	6
Accommodation improved	86
Accommodation reconstructed	10
Ventilation improvements	19
Drainage improvements.. .. .	10
Miscellaneous improvements.. .. .	99

TABLE 16

Factories Act, 1937

Places of Employment

Inspection for Purposes of Provisions as to Health

Premises	Number on Register	Number of		Occupiers Prosecuted
		Inspec- tions	Written Notices	
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities	224	17	3	—
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	2,540	521	103	—
(iii) Other premises in which Section 7 is enforced by the Local Authority* (excluding out-workers' premises)	34	10	3	—
TOTAL	2,798	548	109	—

*Electrical Stations, Institutions, Building Operations and Works of Engineering Construction.

PART V

ADDITIONAL INFORMATION

Health Education

Bolton Medical Bureau

Medical Examinations

Nursing Homes

Special Report on Burns and Scalds

Work done on behalf of the Children's Committee

Care of Children Co-ordinating Committee

National Assistance Act, 1948—Section 47

An Enquiry into the incidence of certain Incapacitating Conditions

Baths and Wash-houses

Meteorological Summary

HEALTH EDUCATION

Health Exhibition:

Although practically all the work for the Health Exhibition was done during 1953, it was not open to the public until January 1954, and then for a period of 6 days only. Full details will be given in the report for that year. I would, however, at this stage, like to thank everybody concerned for the excellent work which was put into this endeavour with such successful results. The Health Exhibition was an example of close co-operation between all the branches of the Health Services in the town and attracted a very high proportion of the general public to it. In all, 32,640 people attended and were able to see the illustrations of the Health Services in action. The aim of the Exhibition was to demonstrate to the public what was being done on their behalf by the Health Services, and at the same time, to show how best to make use of the services available.

Health Services Handbook:

In connection with the Health Exhibition, a Health Services Handbook for Bolton was prepared and issued at the opening of the Exhibition. Again, the work for this Handbook was done during 1953 but it was not made available to the public until January, 1954. This endeavour was another example of joint effort on the part of all concerned with the Health Services of Bolton, and together with new editions which will be necessary from time to time, should provide an excellent reference handbook for medical and lay persons alike. Statutory and Voluntary bodies took part in the production of this edition.

Family Doctor Bulletin:

A Weekly Bulletin to Family Doctors has continued to be issued and has proved to be acceptable to all concerned. Information of joint interest to the Health Department and General Practitioners is given and is undoubtedly an excellent medium for the straightening out of administrative difficulties which arise from time to time.

Public Lectures:

Members of the medical staff gave eight lectures to various organisations in the town on Public Health matters. This type of lecture is becoming increasingly popular and the demand seems likely to increase. The sanitary inspectors also gave seven talks on their own particular duties to interested organisations who had asked for their services. The health visitors too, have conducted various talks both at the clinics and to outside organisations, on mothercraft. Frequent visits to the Health Department have been made, particularly by senior school children.

Central Council for Health Education:

The Corporation contributed to the funds of the Central Council and made use of the Health Education material which was made available from time to time both in the welfare clinics and for general distribution.

BOLTON MEDICAL BUREAU

After consultation with the local medical profession, arrangements were made for a Medical Bureau to be opened at the Borough Ambulance Station to which patients could telephone if they were unable to obtain a reply from their doctor's home or surgery number. The service commenced on the 1st January, 1954, and

gives patients a ready method of calling the family doctor when the latter finds it necessary to leave the home or surgery telephone unattended.

The doctor notifies the Ambulance Station of his absence giving one of three messages:—

- (a) that he can be found at a stated address or telephone number;
- (b) that another doctor (name and address supplied) has agreed to act as his deputy;
- (c) that he will return at a stated time.

In addition, the Medical Bureau is supplied with copies of the Rota and Holiday Schemes arranged by the Local Medical Committee, and is therefore able to consult these to ascertain which doctors are on duty and what arrangements have been made in the event of holidays.

Patients who cannot get a reply from the doctor's surgery or home telephone number can ring the Medical Bureau. The telephonist at the Bureau will repeat any messages left by the doctor, and also consult the Rota and Holiday Schemes. If there is no message left, and it is not known what standing arrangements have been made for a deputy through either of these Schemes, the patient will be advised to ring his doctor again, or in emergency, to obtain the advice of the nearest doctor. Under no circumstances will the Bureau proffer medical advice, nor pass messages from the patient to the doctor, nor accept any responsibility beyond that of informing the patient of any arrangements that have been notified by the doctor.

These arrangements should provide part of the answer to the problem of the patient who cannot find his doctor, and to the difficulties of the unattended telephone in the doctor's surgery or home.

MEDICAL EXAMINATIONS

Part of the duties of the medical officers consist of the examination of persons appointed to the Corporation staff who are intended to occupy superannuable posts, those applying for retirement on medical grounds, and those wishing to exercise the option of allocating part of their pension to their wives. In these circumstances, a medical examination is an essential condition. There is a medical appeals scheme in the event of a disagreement between the Authority's medical officer and the patient's private doctor. A total of 696 persons were examined for these purposes, 19 being found unfit for entry into the Superannuation Scheme.

Entry to the Sickness Payment Scheme is also dependent on a satisfactory medical examination by a member of the medical staff and 379 examinations for this purpose were carried out, 30 persons being found unfit.

Employees who are sick for unduly long periods are referred by the Chief Officer of their Department to an independent medical practitioner for a further opinion. These reports come to the Medical Officer of Health who advises the Departmental Heads of the recommendations of the medical referee.

Resulting from the total of 1,075 examinations carried out by the medical officers of the department for the purpose of these two schemes, 171 persons were referred to a Mass Radiography Unit for X-Ray examinations, and 7 to consultant physicians or surgeons for a further opinion.

NURSING HOMES

There were two Homes situated within the Borough both of which were registered under the provisions of the Public Health Act, 1936. One of the Homes changed hands during 1952 and was re-inspected during the early part of 1953

in connection with the application for re-registration. The premises and staff were satisfactory. Arrangements for the inspection of the second Home were made to take place in early 1954.

Accommodation was provided for acute and chronic medical cases, and the total number of beds maintained at the end of the year was 39, an increase of 8 beds over the previous year.

SPECIAL REPORT ON BURNS AND SCALDS

Arrangements were made for the Health Department to be informed of the names and addresses of persons admitted to the Bolton Royal Infirmary as a result of accidents due to burning and scalding. A home visit was then paid by a health visitor to ascertain the cause of the accident. A total of 29 cases was so notified.

Under 1 year of age:

Four children under the age of one year, were affected; one due to an upset cup of tea, one due to pulling the tablecloth off the table and upsetting the teapot, and one due to pulling a pan of fat off the stove. It was not possible to ascertain the cause of the fourth. In no case could the absence of a fireguard have been reasonably expected to be a contributory factor.

Aged 1-5 years:

Of children between the ages of one and five years, seven were affected. Two upset mugs of tea, two fell on teapots placed on the floor, one upset a pan of water on the hob, one child fell on the fire, and one set her nightdress alight. In two of these accidents there was no fireguard available and in one the fireguard was insecure. It would seem that adequate, secure fireguards could, therefore, have prevented three of these accidents.

School children:

Eleven school children were notified to us from the Infirmary. Two upset a pan of boiling water which they were carrying, one upset a kettle on the hob, one upset a jug of hot water, one had a hot water bottle upset over her by her parent, one was scalded by the steam from raising the lid of the clothes boiler, one was burnt by a firework, and one set her nightdress alight. In two of these cases the provision of a fireguard could reasonably have been expected to prevent an accident.

Aged 15-65 years:

Six adults between the ages of 15 and 65 suffered from burns necessitating admission to hospital. Four of the accidents took place at work. One was due to molten lead, one to chemicals, one to a furnace and one to petrol. One other was due to an explosion at night school and one set her nightdress alight from a radiator.

Over 65 years:

Of the accidents to people over the age of 65, one was reported as setting his night attire alight, probably due to smoking in bed.

On consideration of this very small series, it is important to note that five accidents could have been prevented by an adequate, secure fireguard. Section 11 of the Children and Young Persons Act, 1933, as amended, provides that if a person over 16 years who has the custody of a child under 12 years allows the child to be in any room containing an open fire grate or certain other heating appliances without sufficient fire guard, and without taking precautions against burning or scalding, and the child is killed or suffers serious injury, such person is guilty of a

summary offence, and in some circumstances he may also be guilty of an indictable offence. A large proportion of the accidents were due to the upsetting of various containers of hot liquid used in the home, and it must be emphasised that pans, kettles and teapots must be placed so that young children cannot reach them.

Much suffering could be avoided by simple precautions in the home, and Health Visitors have an important role to play by Health Education in this field. In due course, there is no doubt that the new Heating Appliances (Fireguards) Act, will assist in reducing many accidents due to unprotected heating appliances.

WORK DONE ON BEHALF OF THE CHILDREN'S COMMITTEE

Under arrangements existing between the Health Committee and the Children's Committee, routine medical examinations of the children in the care of the Local Authority were undertaken by the medical staff of the Health Department. In 1953, a total of 486 examinations were made as follows:—

No. of children examined on admission to the Homes	..	..	116
No. of children examined on discharge from the Homes	..	..	71
No. of examinations made for the purpose of boarding children			
out	..	..	38
No. of routine examinations made:			
0-1 years	..	..	42
1-5 years	..	..	51
over 5 years	..	..	168
TOTAL	..	..	486

The small number of examinations made on children under 5 years of age was due to the fact that the Hollins Nursery was closed for the second half of the year, and many of the children were placed in nurseries outside Bolton. Medical treatment, when necessary, was carried out by family doctors.

Nutritional Status:

Of the children over 5 years of age examined, 69% were considered by the medical officer to be in a good general condition (A); 29% in a fair general condition (B); and 1.6% in a poor general condition (C). The children in category 'C' all belonged to one family and were in poor condition when first admitted, but were only in the care of the Local Authority for a short time.

Defects:

Of the children examined, 101 were found to have at least one defect. Some children had more than one defect.

Classification of Defects

No. of defects of Eyes	..	..	..	39
" " " " Ears	..	..	..	8
" " " " Nose and Throat	..	..	..	22
" " " " Lungs	..	..	..	3
" " " " Heart	..	..	..	3
" " " " Abdomen	..	..	..	1
" " " " Speech	..	..	..	12
Other defects	..	..	..	53
TOTAL NO. OF DEFECTS ASCERTAINED	..	..	..	141

Thirteen children were referred to consultants, and 23 children to general practitioners for treatment.

A quarterly report on the medical progress of children under care was made to the Children's Committee.

CARE OF CHILDREN CO-ORDINATING COMMITTEE

In accordance with the recommendation of the Joint Circular, Ministry of Health 78/50, Home Office 157/50 and Ministry of Education 225/50, a Care of Children Co-ordinating Committee was set up in November, 1951, to deal with children neglected or ill-treated in their own homes. The Medical Officer of Health was appointed Chairman, the Chief Education Officer Vice-Chairman, and the Children's Officer Designated Officer. The three departments, together with the Housing Department, have worked closely together in the development of the work of this Committee. Quarterly meetings are held, and are attended by chief officers of the Corporation and representatives of other statutory bodies and voluntary societies, to decide on matters of policy. Monthly meetings are held at officer level, in order to co-ordinate the day to day work of the Committee. In this way, much overlapping and confusion have been avoided.

A central index of problem families in Bolton has been set up. Health Visitors and School Welfare Officers who have statutory reasons for visiting the homes provide most of the information which is collated in the Children's Department. From the 1st November, 1951, to the 31st December, 1953, there were 53 problem families involving 194 children, on whom the Committee received reports.

The work of the Committee is still in its early stages and the lack of a Family Case Worker specifically appointed to help with problem families has been a serious deficiency. Nevertheless, the work that has been accomplished during the period under review showed the following results:—

CATEGORY "A" — 16 families involving 48 children do not require further supervision

CATEGORY "B" — 20 families involving 92 children showed improvement, but require further supervision

CATEGORY "C" — 17 families involving 54 children were regarded as chronic cases, and all the children are now in the care of the Local Authority. The possibility of rehabilitating some of these families, however, is under consideration.

Analysis of the 53 families concerned:

SIZE OF FAMILY				HOUSING ACCOMMODATION			
6 families with	7 children or more			22 families were living in	Corporation		
4	"	"	6 children		houses		
4	"	"	5 "	13	"	"	"
8	"	"	4 "	18	"	"	"
31	"	"	3 "				
			or less				

N.S.P.C.C.		EMPLOYMENT	
41 out of the 53 families were	known to the Society	15 fathers worked irregularly	

HEALTH AND INTELLIGENCE OF PARENTS

Seven fathers and 5 mothers suffered from physical ill health and 7 mothers appeared to be emotionally unstable. Five fathers and 9 mothers appeared to be markedly below average intelligence.

PRISON SENTENCES

Seven fathers and 11 mothers had received sentences of imprisonment for neglecting their children. Eight fathers and 1 mother had received sentences for other offences.

CHILDREN IN THE CARE OF THE LOCAL AUTHORITY

Eighty-nine children had been previously in the care of the Local Authority and 54 were still in care.

NATIONAL ASSISTANCE ACT, 1948—SECTION 47 PERSONS IN NEED OF CARE AND ATTENTION

It was found necessary to remove three persons compulsorily by Orders under Section 47 of the National Assistance Act as modified by the National Assistance (Amendment) Act, 1951. All were removed to hospital accommodation.

The first was a man stated to be 95 years of age, suffering from advanced wet gangrene of the leg, incontinence and bed sores. He refused admission to hospital and was living alone and not receiving care and attention. He was removed to hospital but died some twenty-four hours after admission.

The second was an elderly lady whose age was unknown but stated by her relatives to be over 70 years of age. She was obviously a person of some means and education but lived alone with the occasional assistance of a handyman aged 69 years. Her state had deteriorated until she was personally dirty, and was living and sleeping in a chair in a house which was in a filthy condition and in considerable disorder. The consultant physician at the hospital to which she was removed considered that she was suffering from a dietary deficiency of vitamin C. At the expiry of the Order, she remained in hospital voluntarily and then was subsequently discharged to her home which had been cleaned in the meantime. This lady was kept under observation by the Welfare Department and the Health Visitor for the district, and had in addition, the help of a domestic worker. She was able to move about the house freely at this stage and do her shopping.

The last case was a man aged 65 years, suffering from diabetes and congestive heart failure, residing in a condemned farmhouse in a state of extreme disrepair, but was able to move about the house except upstairs. His only companion was a pony. The place was dirty and the man himself obviously had not washed for a considerable time. The only means of illumination was an inefficient paraffin lamp, and the only food that could be found in the house was cornflakes, bread and pickles. He was extremely short of breath and suffering from oedema of the legs. He was removed to hospital, and under treatment, his condition improved very considerably. He refused the offer of accommodation in an Old Persons' Home and returned to the farmhouse. Action in respect of the farmhouse under Section 11 of the Housing Act was pending at the end of the year.

AN ENQUIRY INTO THE INCIDENCE OF CERTAIN INCAPACITATING CONDITIONS

Blindness:

The registers at the end of the year contained the names of 542 persons who were registered as blind, and 36 as partially sighted.

Forms B.D.8 completed by ophthalmic surgeons during 1953 and received by the Authority, numbered 54. An analysis of the forms was carried out and the following table shows the age and sex distribution of the persons concerned.

	0-5	15-30	30-45	45-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	Total
Males	1	—	—	1	—	2	7	4	1	1	1	19
Females	—	—	3	1	4	7	3	5	7	3	—	35

The cause of blindness in the above cases was as follows:—

	MEN'S EYES	WOMEN'S EYES
CONGENITAL AND UNDETERMINED CAUSES:		
Congenital, hereditary and developmental defects	6	6
Myopic error	—	6
Other errors of refraction	—	1
Primary glaucoma	6	6
Primary cataract	15	33
Primary detachment of retina	—	4
INFECTIOUS AND BACTERIAL DISEASES:		
Other venereal diseases (excluding syphilis and gonorrhoea), tuberculosis, septicaemia or trauma	—	1
TRAUMATIC AND CHEMICAL:		
Industrial trauma	1	—
Non-industrial trauma	—	1
GENERAL DISEASE:		
Vascular diseases	6	2
Diabetes	—	4
NO INFORMATION OBTAINABLE:	2	2

The follow-up of registered blind and partially sighted persons revealed the following information:—

	Cause of Disability			
	Cataract	Glaucoma	Retrolental Fibroplasia	Others
Number of cases registered during the year in respect of which there was recommended:—				
No treatment	20	8	—	18
Treatment (medical, surgical or optical) . .	5 surgical	—	—	4 optical
Number of cases for which treatment was recommended and which on follow-up action have received treatment	—	—	—	—

The follow-up was carried out by visitors for the blind from the Welfare Department, assisted where necessary by the Health Visitor. Unfortunately, many of these blind persons were extremely elderly and had no wish to undergo treatment.

There were no cases of ophthalmia neonatorum notified during the year and consequently, no loss or impairment of vision due to this cause.

No case of retrolental fibroplasia was reported.

Eleven blind and 3 partially-sighted children were in receipt of special educational treatment in boarding schools. In addition, the Local Education Authority were aware of 1 blind and 3 partially-sighted children for whom such treatment was recommended, but who had not yet entered a special school at the end of the year.

Epilepsy:

It is difficult to assess the incidence of epilepsy because the condition is not notifiable. The Chief Welfare Officer states that there were 23 persons (11 men and 12 women) suffering from epilepsy who were maintained in institutions and colonies by the Authority. There was also one man suffering from this condition in an Old Persons' Home.

The local office of the Ministry of Labour are aware of 87 persons who were registered as disabled due to epilepsy.

The Local Education Authority provided special educational treatment for 7 children suffering from epilepsy.

These figures represent only those epileptics whose condition was so severe as to need special arrangements for their education, employment or maintenance.

The Welfare Department is in the process of compiling a register of handicapped epileptic persons.

Cerebral Palsy:

It is difficult to ascertain the incidence of this handicap. The Chief Welfare Officer has only one name entered on his Register of Handicapped Persons due to

this condition. The Local Education Authority are aware of 33 spastics (17 boys and 16 girls) of whom 14 (5 boys and 9 girls) were not in school. Five of these were notified to the Local Health Authority as ineducable; 1 girl was receiving home tuition; and the remainder were under the age of 6.

Consultations have taken place between officials of the Education and Health Departments and the National Society of Spastics, and the latter body have shown interest in starting a school in Bolton to serve this region, within the near future.

Facilities available for handicapped persons:

There are no specific facilities provided by the Health Committee for these groups of handicapped persons. The Welfare Committee have a certain responsibility under the National Assistance Act. No fixed arrangements are made for co-ordination. As each problem arises, the necessary consultation and action takes place. It is felt that the problems of the handicapped, as they affect the local health services, are such that each patient needs a special consideration of his needs. General co-operation with the other branches of the health services is good and on an informal personal basis. It does not seem, therefore, at this stage necessary to make detailed administrative arrangements.

BATHS AND WASH-HOUSES

In Bolton, the Baths and Wash-houses are administered under the direction of the Medical Officer of Health. The following facilities are available—

BATHS:

High Street	.. ..	1 Plunge 9 Slipper Baths
Bridgeman Street	.. ..	2 Plunges 25 Slipper Baths
Moss Street	.. ..	2 Plunges 18 Slipper Baths
Rothwell Street	.. ..	15 Slipper Baths
Great Moor Street	.. ..	Turkish Baths

WASH-HOUSES:

Moss Street	.. ..	12 Hand-washing stalls 6 Electric rotary washing machines
Rothwell Street	.. ..	18 Hand-washing stalls 12 Electric rotary washing machines 1 Coin slot ironing machine

The coin slot ironing machine was installed at Rothwell Street Wash-houses in November and has proved a valuable addition to the amenities of the establishment. The charge is 1d. for two minutes and it is estimated that the average family wash is ironed on this machine in about ten minutes.

The following table shows the attendances at the various establishments during the last three years.

	Swimming Plunges			Slipper Baths			Wash-houses		
	1953	1952	1951	1953	1952	1951	1953	1952	1951
High St. Baths	65,578	56,575	57,438	16,873	14,606	17,791	—	—	—
Bridgeman St. Baths. . . .	84,483	84,880	75,902	34,846	33,546	34,245	—	—	—
Moss St. Baths and Wash-houses . .	92,831	81,244	77,007	40,242	36,750	40,312	26,276	29,915	30,622
Rothwell St. Wash-houses	—	—	—	16,733	17,221	18,486	42,663	47,801	48,374
TOTALS . . .	242,892	222,699	210,347	108,694	102,123	110,834	68,939	77,716	78,996

It is interesting to notice that the attendances at the Turkish Baths remained consistent over the last two years:—

YEAR	ATTENDANCES
1951	4,725
1952	6,167
1953	6,163

In June, the charges for admission to the swimming and slipper baths were reduced with the object of increasing the use of the facilities available. The attendances at the swimming and slipper baths have increased by approximately 20,000 and 6,000 respectively over the previous year but the revenue has remained substantially the same. During the year, the large plunge at Bridgeman Street Baths was closed for eight weeks for painting and renovation, but the attendances over the year were only slightly fewer than for 1952.

The attendances shown for the swimming baths include attendances by the holders of scholarship tickets awarded under the Bolton Scholarship for the Encouragement of Swimming. Holders of the bronze medallion of the Royal Life Saving Society are also awarded free admission for twelve months. The figures also include 52,428 attendances by school children between April and October under arrangements made with the Local Education Authority.

Facilities were granted to Swimming Clubs for after-hours swimming, for the holding of galas, and for the promotion of water polo matches.

It will be seen that there has been a steady fall in the attendances at the public wash-houses over the past three years. To a certain extent, this may be in part, the result of the withdrawal of the wash-house transport service at the end of 1952 and to the increasing use of electric washing machines in the home. Although the prices for the use of electric washing machines in the wash-houses were increased in June 1953, there is little evidence to suggest that this has, in itself, made any significant difference in the use of the service.

METEOROLOGICAL SUMMARY, 1953

Compiled at Queen's Park Observatory by E. HENDY, F.R.Met.S.

1953	Barometer inches	Mean Relative Humidity %	Mean of Maximum and Minimum Temperature °F.	Absolute Extremes of Temperature				Sunshine			Total Rainfall inches
				Highest °F.	Date	Lowest °F.	Date	Total Amount hours	Maximum in one day hours	Date	
January ..	30.156	90.3	38.29	50.3	28	23.9	5	25.1	5.4	25	2.102
February..	30.116	84.0	39.60	58.6	27	24.0	4, 8	52.8	5.7	7	1.543
March ..	30.426	80.3	41.74	66.6	25	27.0	3	124.2	9.3	27	2.370
April ..	29.887	72.0	43.36	67.2	23	29.2	15	178.9	12.9	25	3.008
May ..	30.068	72.3	53.28	72.3	25	34.1	1	206.8	13.0	2	2.411
June..	29.940	78.7	56.80	80.6	25	41.0	6	151.5	14.1	27, 30	2.039
July ..	29.831	81.5	59.70	77.9	1	45.1	15	175.7	13.7	1	4.890
August ..	29.995	82.3	58.66	88.0	12	47.3	17	162.2	13.7	1	5.256
September ..	29.910	85.4	55.21	71.8	7	39.2	24	113.3	10.0	7	4.512
October ..	30.112	90.1	47.54	67.1	1	33.2	29	77.4	9.0	4	1.957
November ..	30.075	89.6	46.13	55.8	12, 15	31.9	30	31.4	7.2	4	4.646
December ..	30.159	92.1	43.19	55.3	3	29.1	31	19.2	5.7	19	1.752
Totals ..	360.675	998.6	583.50					1318.5			36.486
Monthly Average ..	30.056	83.2	48.62					109.9			3.041

Rainfall: Average 1887-1953 = 44.400"